UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

IN RE CITIGROUP INC. SECURITIES LITIGATION	LEAD CASE 09 MDL 2070 (SHS)
DANIEL BRECHER, SCOTT SHORT, CHAD TAYLOR, JENNIFER MURPHY, PAUL KOCH and MARK OELFKE, individually and on behalf of all others similarly situated, Plaintiffs, vs. CITIGROUP INC.; CITIGROUP GLOBAL MARKETS, INC.; Defendants.	This document relates to 09 Civ. 7359 (SHS) Hon. Sidney H. Stein **SECOND AMENDED CONSOLIDATED CLASS ACTION COMPLAINT FOR VIOLATION OF THE FEDERAL SECURITIES LAWS** **DEMAND FOR JURY TRIAL**

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Plaintiffs, by their attorneys, allege upon personal knowledge as to their own acts and upon information and belief as to all other matters, based in part upon the investigation conducted by counsel, which included, *inter alia*, a review of Securities and Exchange Commission ("SEC") filings, news reports, analyst reports, press releases, and other publicly available documents, as follows:

NATURE OF THE CASE

1. This is a class action lawsuit on behalf of all persons who participated in the Voluntary FA Capital Accumulation Program ("FA CAP") of Citigroup Inc. and its subsidiary, Citigroup Global Markets, Inc. d/b/a Smith Barney (collectively "Citigroup" or the "Company"). Under the FA CAP, participants used their earned wages to acquire restricted or deferred common stock ("CAP Shares") or a stock option ("CAP Option" and, collectively with CAP Shares, the "Securities") of Citigroup pursuant to a prospectus (as defined below, collectively, the "Offering Documents").

2. This action asserts strict liability claims under the Securities Act of 1933 ("Securities Act") against Citigroup (collectively, "Defendants"). This action also asserts claims under the Securities Exchange Act of 1934 ("Exchange Act") against Citigroup Inc.

3. Citigroup is a global diversified financial services holding company whose businesses provide a broad range of financial services to consumers and corporate customers.

4. While many financial institutions suffered in connection with subprime and other housing related issues recently, Citigroup stands atop the pile as the financial institution that has experienced the greatest losses.

5. After the dot-com technology bubble burst in 2001, the housing market in the United States began a rapid and sustained increase in perceived value. With dramatically decreased interest rates and widely available credit, even to those who had no down payments to

provide and to those with checkered credit histories, an unprecedented number of Americans were afforded access to credit to purchase homes. Loan incentives and a long-term trend of rising housing prices encouraged borrowers to assume mortgages with lower payment streams in the early years, based on the expectation that refinancing would be available later when the increased payments were triggered, secured by ever increasing home values. Speculation fueled increasing prices, as numerous Americans sought to purchase homes only to "flip" or quickly sell them for a profit.

6. Beginning in late 2005, however, house prices plateaued, then began to deflate. The vast bulk of mortgages originated earlier in the decade with adjustable rates began to be reset, causing families to experience rapid and significant increases in monthly payments. Increasing foreclosure rates beginning in 2006 led to faster decreases in housing values beginning in mid-2007. Defaults and foreclosure activity increased dramatically as adjustable rate mortgage interest rates reset higher. During 2007, nearly 1.3 million U.S. housing properties were subject to foreclosure activity, up 79% from 2006. The U.S. Treasury Secretary called the bursting housing bubble "the most significant risk to our economy."

7. In order to enjoy short-term profits associated with the housing bubble, even as it started to deflate, the Company invested heavily in subprime related financial instruments. Citigroup's purchases of billions of dollars of subprime loans, starting at least as early as 2006, were reckless and would eventually lead to billions of dollars in write-downs and lost revenues. In fact, by the time the housing bubble fully burst, a staggering 43% of Citigroup's equity was tied up in subprime related assets, including $43 billion in credit derivative products. The Company also was exposed to massive consumer debt issues.

8. Once the bubble burst, Citigroup was forced to face the long term consequences of its short term focus: it was forced to reduce the "fair value" of approximately $55 billion in

U.S. subprime related direct exposures in its Securities and Banking ("S&B") business in late 2007. Citigroup subsequently announced a $9.8 billion fourth-quarter 2007 loss and a $5.1 billion first-quarter 2008 net loss, precipitated by more than $18 billion in various credit-related hits, all due to its exposures in the most senior tranches (super senior tranches) of collateralized debt obligations ("CDOs"), which are collateralized by asset-backed securities ("ABSs").

9. In addition to taking massive write-downs, Citigroup was forced to trim its workforce significantly, watched its stock price tumble to unprecedented low trading levels, suffered through months of management turnover, wasted untold goodwill, and watched its reputation suffer immense harm.

10. Given the inherently risky nature of subprime lending and the widespread discussion with respect to the housing bubble, the Company recklessly invested good dollars after bad, while Citigroup suffered under the massive weight of deteriorating credit markets, ultimately necessitating enormous write-downs of its CDOs.

11. As detailed below, Citigroup sold the Securities to employees in order to allow employees to have a percentage of their annual compensation paid in the form of awards of restricted common stock. The Offering Documents incorporated Citigroup's annual financial results as well as any future filings made with the SEC under Section 13(a), 13(c), 14 and 15(d).

12. The Offering Documents, however, included untrue statements of material fact and omitted material information concerning:

A. Citigroup's proper valuation of SIVs' assets;

B. Citigroup's recorded losses for impaired assets;

C. Citigroup's "well capitalized" status;

D. Citigroup's financial statements' compliance with generally accepted accounting principles ("GAAP").

THE FA CAP PROGRAM

13. The FA CAP program is designed to provide eligible employees the opportunity to divert up to 25% of their earned wages on pre-tax basis for the purpose of buying Securities at a discount. The vesting period for the Securities is two years from the award date. During this two-year period, Citigroup holds the earned wages in trust for the benefit of the FA CAP participants. Participants may elect to receive either restricted shares or options with a grant price equal to the closing price of Citigroup common stock on the NYSE on the trading day immediately preceding the grant date. If a participant leaves his or her employment before the Securities vest, the participant forfeits both the Securities *and* the earned wages he or she diverted into the FA CAP.

14. Financial Advisors employed by the Smith Barney division of Citigroup Global Markets, Inc. and Account Executives employed by the futures Division of the Citigroup Corporate and Investment Banking Group are eligible to enroll in the FA CAP program.

15. Eligible participants received an annual prospectus from Citigroup covering the securities to be awarded pursuant to the FA CAP program. The prospectus incorporated by reference the Company's previously filed annual report as well as all future SEC filings made pursuant to Section 13(a), 13(c), 14 and 15(d) of the Exchange Act (collectively with the prospectus, the "Offering Documents").

16. The P&C Committee administers the FA CAP program.

THE PARTIES

Plaintiffs

17. Plaintiff Daniel Brecher ("Brecher") is an individual who was previously employed by Citigroup in San Diego County, California during the relevant period. Brecher

currently resides in San Diego County, California. Plaintiff purchased the Securities within the meaning of 15 U.S.C. §77l.

18. Plaintiff Scott Short ("Short") is an individual who was employed by Citigroup in San Diego County, California during the relevant period. Short currently resides in San Diego County, California. Plaintiff purchased the Securities within the meaning of 15 U.S.C. §77l.

19. Plaintiff Chad Taylor ("Taylor") is an individual who was employed by Citigroup in San Diego County, California. Taylor resides in San Diego County, California. Plaintiff purchased the Securities within the meaning of 15 U.S.C. §77l.

20. Plaintiff Jennifer Murphy ("Murphy") is an individual who resides in Contra Costa County, California. Plaintiff is a former employee of Citigroup. Plaintiff purchased the Securities within the meaning of 15 U.S.C. §77l.

21. Plaintiff Paul Koch ("Koch") is an individual who resides in North Plymouth, Minnesota and was employed by Citigroup in Minnesota during the Class Period. Plaintiff purchased the Securities within the meaning of 15 U.S.C. §77l.

22. Plaintiff Mark Oelfke ("Oelfke") is an individual who resides in North Plymouth, Minnesota and was employed by Citigroup in Minnesota during the Class Period. Plaintiff purchased the Securities within the meaning of 15 U.S.C. §77l.

Defendants

23. Defendant Citigroup Inc. was incorporated in 1988 under the laws of the State of Delaware and maintains its principal executive offices in New York, New York. According to its most recent quarterly report, Citigroup operates, for management reporting purposes, via two primary business segments: Citicorp, consisting of Citi's *Regional Consumer Banking* businesses and *Institutional Clients Group*; and Citi Holdings, consisting of Citi's *Brokerage and Asset Management* and *Local Consumer Lending* businesses, and a *Special Asset Pool*. There is also a

third segment, *Corporate/Other*. Defendant Citigroup Inc. is a seller of the Securities within the meaning of 15 U.S.C. §77l.

24. Defendant Citigroup Global Markets, Inc. d/b/a Smith Barney is a Delaware corporation that maintains its principal executive offices in New York, New York. Plaintiffs allege on information and belief that Citigroup Global Markets, Inc. is a wholly owned subsidiary of Citigroup Inc. For ease of reference, Citigroup Inc. and Citigroup Global Markets, Inc. are collectively referred to in this complaint as "Citigroup."

25. OMITTED.

26. OMITTED.

27. OMITTED.

28. OMITTED.

29. OMITTED.

30. OMITTED.

31. Defendants John Does 1-30 are residents of the United States and are or were sellers of the Securities within the meaning of 15 U.S.C. §77l. These defendants, whose identities are currently unknown to Plaintiffs, may include additional Citigroup employees. Once their identities are ascertained, Plaintiffs will seek leave to join them under their true names.

32. OMITTED.

JURISDICTION AND VENUE

33. The federal claims asserted herein arise under and pursuant to Sections 12(a)(2) of the Securities Act (15 U.S.C. §§77l(a)(2)) and 10(b) of the Exchange Act (15 U.S.C. §78j(b) and 78t(a)) and Rule 10b-5 promulgated thereunder (17 C.F.R. §240.10b-5).

34. In connection with the acts complained of, defendants, directly or indirectly, used the means and instrumentalities of interstate commerce, including, but not limited to, the mails, interstate telephone communications and the facilities of the national securities markets.

35. This Court has jurisdiction over the federal claims pursuant to 28 U.S.C. §1331, Section 22 of the Securities Act of 1933, 15 U.S.C. §77v, and Section 27 of the Exchange Act, 15 U.S.C. §78aa.

36. Venue is proper in this District pursuant to 28 U.S.C. §1391(b), because the Company conducts business in this District and many of the acts and practices complained of herein occurred in substantial part in this District. Venue is also proper in the Southern District of California where this action was originally filed prior to transfer by the Judicial Panel on Multidistrict Litigation because some of the plaintiffs reside there and many of the acts and practices complained of herein occurred in substantial part or caused harm in that District.

37. In connection with the acts alleged in this complaint, defendants, directly or indirectly, used the means and instrumentalities of interstate commerce, including, but not limited to, the mails, interstate telephone communications and the facilities of the national securities markets.

CLASS ACTION ALLEGATIONS

38. Plaintiffs bring this action as a class action pursuant to Federal Rule of Civil Procedure 23(a) and (b)(3) on behalf of the following classes:

A. The "Federal Class" consists of all persons or entities who, between November 2006 and June 2009 (when Citigroup sold its brokerage operations to Morgan Stanley Smith Barney) (the "Federal Class Period"), acquired the Securities through the FA CAP pursuant to the Company's false and misleading Offering Documents issued in connection with the Company's offering and who were damaged thereby.

B. Excluded from the Class are defendants, the officers and directors of the Company, at all relevant times, members of their immediate families and their legal representatives, heirs, successors or assigns and any entity in which defendants have or had a controlling interest.

39. The members of the Class are so numerous that joinder of all members is impracticable. While the exact numbers of Class members are unknown to plaintiffs at this time and can only be ascertained through appropriate discovery, plaintiffs believe that there are hundreds of members in the Class. Record owners and other members of the Class may be identified from records maintained by the Company or its transfer agent and may be notified of the pendency of this action by mail, using the form of notice similar to that customarily used in securities class actions.

40. Plaintiffs' claims are typical of the claims of the members of the Class, as all members were similarly affected by defendants' wrongful conduct that is complained of herein.

41. Plaintiffs will fairly and adequately protect the interests of the members of the Class and have retained counsel competent and experienced in class action litigation, securities litigation, fiduciary litigation, and wage and hour litigation.

42. Common questions of law and fact exist as to all members of the Class, which predominate over any questions solely affecting individual class members.

43. Among the questions of law and fact common to the Class are:

A. whether the federal securities laws were violated by defendants' acts as alleged herein;

B. whether statements made by defendants to the Class members in the Offering Documents misrepresented material facts about the business, operations and management of the Company; and

C. to what extent the members of the Class have sustained damages and the proper measure of damages.

44. OMITTED.

45. A class action is superior to all other available methods for the fair and efficient adjudication of this controversy since joinder of all members is impracticable. Furthermore, as the damages suffered by individual class members may be relatively small, the expense and burden of individual litigation would make it impossible for members of the class to individually redress the wrongs done to them. There will be no difficulty in the management of this action as a class action.

SUBSTANTIVE ALLEGATIONS

Citigroup's Subprime Market Business

46. Since at least as early as 2006, Citigroup engaged in massive subprime lending. "Subprime" generally refers to borrowers who do not qualify for prime interest rates because they exhibit one or more of the following characteristics: weak credit histories typically characterized by payment delinquencies; previous charge-offs, judgments, or bankruptcies; low credit scores; high debt-burden ratios; or high loan-to-value ratios.

47. Over the relevant period, Citigroup became one of the biggest players in the lucrative world of CDOs. CDOs are repackaged pools of lower-rated securities, backed by subprime loans, into tranches with different levels of risk and return. Citigroup creates a CDO by acquiring an inventory of asset-backed securities and subsequently selling rights to the cash flow from the securities in a number of trenches rated by credit risks. Citigroup then profits from the fees that it charges to manage the CDO.

48. Unlike conventional CDOs that were backed by subprime mortgages, Citigroup used a put type of option with its CDOs, called a liquidity put that allowed a buyer of the CDOs to sell them back, at original value, to Citigroup.

49. Specifically, during the summer of 2007, when the industry was unwilling to finance CDOs in reaction to the subprime market crisis, the holders of the liquidity-put CDOs began to return these CDOs to Citigroup, which comprised approximately $25 billion worth of Citigroup's $55 billion of subprime-related securities.

50. Citigroup's $55 billion subprime exposure – and one source of its problems – was found in two separate areas of its S&B unit. The first "bucket," totaling $11.7 billion, included securities tied to subprime loans that were being held, or warehoused, until they could be added to debt pools for investors. The second "bucket," totaling $43 billion, covered so-called super-senior securities, which are portions of CDOs, primarily backed by subprime residential mortgage backed security ("RMBS") collateral. ("RBMS" refers to securities whose cash flows come from residential debt such as mortgages. This is a type of mortgage-backed security that focuses on residential, rather than commercial debt.)

51. Since at least as early as 2006, Citigroup invested billions of dollars in subprime loans and subprime RMBS collateral for its CDO portfolios. Specifically, Citigroup placed such under-performing and/or non-performing assets in off-balance sheet structured investment vehicles ("SIVs") without full disclosure in the Offering Documents of the risks associated with this practice, including the real possibility that Citigroup was ultimately responsible to stabilize the SIVs either through cash infusions or by recapturing the SIVs' assets should they fail.

52. An SIV is a type of complex bond market investment originally created to help banks finance low-risk assets such as credit card loans. To set up an SIV, banks borrow cash by selling commercial paper to investors and use the proceeds to purchase bundles of high quality

loans. Investors buy the commercial paper at a discount from face value and expect to hold it for 30, 60 or 90 days, at which point the investor receives the full face value of a note. In short, SIVs sell short-term debt to buy longer-term, higher-yielding assets.

53. Historically, because the SIVs' underlying assets were relatively low risk, they also had very low profit margins. When Citigroup and others saw the opportunity for greater profit, they increased risks and purchased riskier borrowings, such as home equity loans. In fact, in spite of the staggering risks associated with subprime lending, Citigroup took advantage of short-term profits at the expense of the Company's long-term viability, all in the face of a growing consensus that such practices were highly risky and would subject those involved to significant losses when the "music stopped." The Offering Documents omitted these material facts.

The Offering Documents Included Untrue Statements of Material Facts and Omitted to State Material Facts Necessary to Make the Statements Not Misleading

54. The Offering Documents included untrue statements of material facts and omitted to state material facts necessary to make the statements not misleading as set forth below.

A. Facts Regarding Citigroup's Exposure to as Much as $66 Billion of CDOs Backed by Subprime Mortgages

55. The Company's Form 10-K for 2006 stated that Citigroup acted as a market maker for CDOs by creating and selling CDOs to outside investors through off-balance sheet entities called Variable Interest Entities ("VIEs"). According to the 2006 Form 10-K, Citigroup's role in the CDO market was to "create new security offerings . . . for institutional clients and retail customers" through its VIEs and that it had only "limited continuing involvement" in the VIEs, was "not the primary beneficiary," and thus, Citigroup did not reflect the assets of the VIEs on its balance sheet. Similarly, the 2006 Form 10-K stated that the

"Company's mortgage loan securitizations are primarily non-recourse, thereby effectively transferring the risk of future credit losses to the purchasers of securities issued by the trust."

56. By the middle of 2007, the Company held direct exposure to approximately $66 billion of subprime-backed CDO securities.

57. The Company accumulated this exposure in two ways. First, Citigroup had retained the risk of loss with respect to $25 billion of subprime mortgage-backed CDO securities issued between 2003 and the end of 2005, by selling those securities to investors but specifically attaching a guarantee to them known as a "liquidity put." Citigroup wrote the liquidity puts on its so-called "commercial paper" CDOs. The Company's commercial paper CDOs functioned just like a typical CDO, except that, in addition to drawing income from the underlying RMBS, the CDO also created income by issuing short-term commercial paper.

58. Under the terms of the liquidity puts that Citigroup used to sell its CDO securities to outside investors, if the CDO could not issue commercial paper at a specified interest rate in order to fund its obligations profitably, then Citigroup itself was obligated to directly satisfy the obligations on the CDO's outstanding securities. Citigroup's guarantee that it would fund the CDO securities if the CDO trust could not issue commercial paper at a profitable rate directly contradicted the "non-recourse" risk transfer that the Company described in the Offering Documents.

59. In addition, between 2004 and 2007, Citigroup had created approximately $28.4 billion of subprime mortgage-backed CDO securities that it was unable to sell, which the Company retained on its own balance sheet. Further, more than $8 billion of the $28.4 billion in subprime-backed CDO paper that Citigroup could not sell to third parties consisted of especially risky mezzanine CDO securities, which were most vulnerable to default in the collapsing housing market.

60. By the third quarter of 2007, Citigroup's exposure to subprime mortgage-backed CDOs amounted to approximately $66 billion, was highly material because it equaled approximately 60% of Citigroup's Tier 1 capital at the end of 2007, and thus posed a substantial risk to the Company's capital adequacy.

61. OMITTED.

62. OMITTED.

63. On January 19, 2007, Citigroup issued a press release announcing its financial results for the year ended December 31, 2006, and for the fourth quarter ended December 31, 2006. The press release highlighted the "double-digit revenue growth in [Citigroup's] corporate and investment banking, wealth management and alternative investment businesses. . ." and the "***positive trends from [Citigroup's] strategic actions***." The press release included the following statement:

> Our results were highlighted by double-digit revenue growth in our corporate and investment banking, wealth management and alternative-investment businesses. In U.S. consumer, we continued to see ***positive trends*** from our strategic actions. Performance in these businesses was partially offset by lower results in international consumer, which included significant charges in our Japan consumer finance business. Customer balances continued to grow strongly, partly driven by our investment in new distribution," said Charles Prince, Chairman and Chief Executive Officer of Citigroup . . .
>
> Our 2007 priorities are clear: generating sustainable growth in U.S. consumer, growing international consumer, corporate and investment banking and wealth management businesses more quickly, focusing sharply on expense management, and remaining highly disciplined in credit management. We will continue to invest to integrate our businesses and expand our reach, while at the same time taking a thorough review of our entire expense base to ensure that we operate as efficiently and effectively as possible.

(Emphasis added).

64. During a conference call with investors that same day, a UBS analyst questioned why loan loss reserves had not changed when there had been an increase in Citigroup's consumer loans. Citigroup's reserve status was described as follows:

> [W]e believe that we have adequate reserves, we believe we have the right level of reserve for what we are seeing in terms of the growth in the portfolio, what we see in terms of the embedded loss in the portfolio. And as the environment changes the complexion, the portfolio changes, etc., we review that. We have I guess to go along with the guys that have the pocket protectors or the Ph.D. guys who look at the reserves and we feel very good, very good about the level of them.

65. On February 23, 2007, Citigroup filed its Form 10-K for the year ended December 31, 2006. Commenting on its outlook for 2007, the Company announced that it was entering 2007 with "good business momentum."

66. OMITTED.

67. The Company explained that from 2004 to 2005 "[subprime] mortgage originations declined 20%, reflecting the Company's decision to avoid offering teaser rate and interest-only mortgages to lower FICO score customers."

68. The annual report also noted that the "Company's mortgage loan securitizations are primarily non-recourse, thereby effectively transferring the risk of future credit losses to the purchasers of securities issued by the trust."

69. On April 16, 2007, Citigroup issued a press release announcing the Company's reported net income for the quarter ended March 31, 2007, of $5.01 billion, or $1.01 per share. Citigroup stated that the Company had "generated strong momentum this quarter" including record revenues and growth.

70. Former Chairman and CEO Prince commented, "[w]e achieved these results while completing our structural expense review, which will help us become a leaner, more efficient organization and lower our rate of expense growth. As we look ahead, ***our priorities are clear:***

we will invest to grow and integrate our businesses, take actions to improve efficiency and lower costs, and continue to build momentum across our franchises." (Emphasis added).

71. On April 16, 2007, Company executives held a conference call with investors to discuss the Company's financial results for the first quarter of 2007. During the call, an analyst questioned whether $9 billion worth of loans held by Citigroup were "no documentation" or "low documentation" subprime loans. Citigroup's CFO, Crittenden, implied that said loans were profitable:

> GLENN SCHORR, ANALYST, UBS: Thanks, it is S. On slide 6, the U.S consumer mortgage trend, in the footnote, you noted that it excludes $5 billion of first mortgages and almost $4 billion of second mortgages where you didn't have FICO and LTV data. Just curious on what type of loans that might be, why you don't have the data and how your gut is that that might change the results that you showed on the slide?
>
> GARY CRITTENDEN: We actually just finished preparing this data over the course of the last week or so and we don't have a comprehensive view that includes all of the -- the full scope of the portfolio. The underlying delinquency performance of the things that were excluded from the table have very good delinquency performance associated with them. So there was no -- if you look at the underlying performance of those mortgages that were excluded from the table with those that are included, there was just no underlying difference in the delinquency performance between the two.
>
> GLENN SCHORR: Got you. I would guess it is probably stuff that falls into that all [pay] no [doc]/low doc type of –
>
> GARY CRITTENDEN: You know, we don't use that nomenclature here and don't think about the business in that way.
>
> GLENN SCHORR: Okay. But you don't have FICO and LTV scores on the loans? Okay. I'm good. I don't need a follow-up. Thanks.
>
> GARY CRITTENDEN: Great. Thanks.

72. Crittenden's comments about the Company's operations led investors to believe that Citigroup's subprime loan loss exposure was minimal. Paul Nolte, director of investments at Hinsdale Associates, a money management firm was quoted on April 16, 2007 in a CNNMoney.com article as stating "[o]ne of the question marks coming into earnings season has

been the mortgage issue, ***and Citigroup making positive comments about its business has lent some strength to the overall market***." (Emphasis added).

73. On July 10, 2007, the *Financial Times* published an article quoting Prince's cavalier, dismissive attitude regarding the turmoil in the subprime mortgage market and its implications for the leveraged finance market. Prince stated, "[w]hen the music stops, in terms of liquidity, things will be complicated. ***But as long as the music is playing, you've got to get up and dance. We're still dancing***." (Emphasis added). Prince commented further that there was so much liquidity at the moment that the "party" would not be disrupted by turmoil in the subprime mortgage market.

74. On a July 20, 2007 conference call, Crittenden, the Company's CFO, stated that the Company's total on-balance sheet subprime exposure in its Securities and Banking division was $13 billion as of the second quarter of 2007, which had been materially reduced from $24 billion at the end of 2006 (a figure never before disclosed). Crittenden also announced that the Company would mark down its subprime-backed securities by approximately $1.3 billion. According to Crittenden, "Think about this as the CDOs, the CLOs, and the secured assets that we hold on our balance sheet. I think our risk team did a nice job of anticipating that this was going to be a difficult environment, and so set about in a pretty concentrated effort to reduce our exposure over the last six months."

75. In a July 20, 2007 press release reporting net income for the second quarter of 2007, the Company announced record revenues and an 18% increase in both net income and earnings per share. The press release also reported, as to Citigroup's Securities and Banking segment, decreasing credit costs "***reflecting a stable global corporate credit environment***." (Emphasis added).

76. Based upon these disclosures, analysts concluded that Citigroup's subprime CDO exposure was both "small" and "manageable." For example, after the Company's second quarter 2007 earnings release and conference call, a July 23, 2007 Buckingham report stated that "the impact of subprime on" Citigroup's "balance sheet" was "small" because "broker balance sheets are not static, with turnover of subprime assets related to securitizations rapid." Due to the ostensibly "small" amount of the Company's subprime exposures, the Buckingham report reiterated a "Strong Buy" recommendation. Similarly, a July 23, 2007 Bear Stearns report noted that the Company's statements regarding its subprime exposure "suggested that the bank's risks are both relatively small and manageable."

77. The Offering Documents also stated that "actual losses are not expected to be material" on the Company's VIEs. As the housing market began to decline and then collapsed in 2006 and 2007, the Company held direct exposure to as much as $66 billion of subprime-backed CDOs and was obligated to absorb losses on its SIVs, which contained as much as $100 billion of troubled assets, including billions of dollars of additional mortgage backed securities. Given these massive exposures to mortgage-backed securities, as the housing market began to decline and then collapsed in 2006 and 2007, the Company faced a material risk of losses arising from its VIEs.

78. As noted above, on July 20, 2007, Crittenden stated that the Company had $13 billion of direct exposure to subprime assets, and that the Company had materially reduced this exposure from $24 billion at the end of 2006. During an October 1, 2007 conference call, Crittenden reiterated that the Company had reduced its direct subprime exposure to $13 billion. A transcript of this conference call was attached to a Form 8-K and filed with the SEC on October 1, 2007 and thereby incorporated into the Offering Documents.

79. On October 15, 2007, Citigroup issued a press release reporting disappointing financial results for the third quarter. The press release reported net income of $2.38 billion, a decline of 57% from the Company's prior year results. The announcement stated, in relevant part, as follows:

> Citigroup Inc. (NYSE:C) today reported net income for the 2007 third quarter of $2.38 billion, or $0.47 per share, a decline of 57% from the prior-year quarter. Results include a $729 million pre-tax gain on the sale of Redecard shares. Return on equity was 7.4%. On October 1, 2007, Citi announced that it expected third quarter 2007 net income to decline in the range of 60%, subject to finalizing third quarter results.
>
> **Management Comment**
>
> "This was a disappointing quarter, even in the context of the dislocations in the subprime mortgage and credit markets. A significant amount of our income decline was in our fixed income business, where we have a long track record of strong earnings, and this quarter's performance was well below our expectations. Although we generated strong momentum in many of our franchises, our fixed income results, along with higher credit costs in global consumer, led to significantly lower net income," said Charles Prince, Chairman and CEO.

80. The Company also announced write-offs that were half a billion dollars more than the Company had forecast only two weeks earlier. Citigroup's third-quarter results included a $1.35 billion pretax write-down in the value of leveraged loans, $1.56 billion of pretax losses tied to loans and subprime mortgages that were to be repackaged and sold to investors, $636 million in pretax fixed-income trading losses and $2.98 billion in increased consumer-credit costs.

81. The Company reported positive net income of more than $2 billion, but acknowledged that the results were "disappointing" and below expectations. The Company attributed the results to declines in the fixed income business but it did not further detail the aspects of that business that were deteriorating. Moreover, in that press release, Chuck Prince

assured investors that the Company was healthy and that any problems in the fixed income business were being addressed.

82. Citigroup's stock price continued to tumble over the next few days to $42.61 on October 19, 2007, representing a 10.9% decline wiping out approximately $25 billion in market value over a five-day period.

83. Citigroup's shares fell another 6.8% on November 1, 2007 after Credit Suisse and CIBC World Markets downgraded Citigroup's stock on concern that the Company might have to cut its dividend to boost its capital, amid reports that Citigroup would be required to disclose billions more in losses. Citigroup shares fell $3.39 from a close of $41.90 on October 31. 2007 to $38.51 on November 1, 2007, the lowest level since May 2003 and the biggest one-day drop since September 2002 and a single-day market capitalization loss of over $16 billion.

84. On November 4, 2007, Citigroup announced significant declines in the fair value of the approximately $55 billion in the Company's U.S. subprime related direct exposures, and estimated, at that time, further write-downs ranging from $8 billion to $11 billion. This was the first time the Company disclosed that it actually possessed an additional $43 billion of exposure to subprime-backed CDOs, bringing its total disclosed exposure to approximately $55 billion. The press release stated in relevant part as follows:

> Citigroup Inc. announced today significant declines since September 30, 2007 in the fair value of the approximately ***$55 billion in U.S. subprime related direct exposures in its Securities and Banking (S&B) business.*** Citi estimates that, at the present time, ***the reduction in revenues attributable to these declines ranges from approximately $8 billion to $11 billion*** (representing a decline of approximately $5 billion to $7 billion in net income on an after-tax basis).
>
> ***
>
> The $55 billion in U.S. subprime direct exposure in S&B as of September 30, 2007 consisted of (a) approximately $11.7 billion of subprime related exposures in its lending and structuring business, and (b) approximately $43 billion of exposures in the most senior tranches (super senior tranches) of collateralized debt obligations

which are collateralized by asset-backed securities (ABS CDOs).

(Emphasis added).

85. The press release also noted that Citigroup was unable to value the most senior tranches of its ABS CDOs.

86. In addition, on November 4, 2007 Citigroup filed its Form 10-Q for the third quarter 2007. The filing revealed that Citigroup was revising the financial results issued by the Company on October 15, 2007, by revising its net income downward by $166 million.

87. Remarkably, Citigroup shareholders first learned of the liquidity put CDOs on November 4, 2007 when Citigroup filed its 10-Q for the third quarter.

88. Also on November 4, 2007, Citigroup issued a press release announcing that Prince "elected to retire from the Company. . . [and] resigned from his position as Chairman of the Board and Chief Executive Officer effective November 5, 2007 and will retire from the Company effective December 31, 2007." In a memo to employees announcing his resignation, Prince wrote: "It is my judgment that the size of these charges makes stepping down the only honorable course for me."

89. Just days before Prince's own "retirement," Citigroup "reorganized its management" pushing out its head of trading and one of its fixed income chiefs even though, as *Reuters* pointed out, "Citi's warning last week left some investors calling for Prince's ouster." As one analyst told the news agency: "Clearing the bench may be therapeutic, but it doesn't necessarily improve Citi's ability to fix the mistakes that were made or seize opportunities in these markets."

90. On November 5, 2007 Citigroup filed its Form 10-Q for the quarter ending September 30, 2007 (the "November 5, 2007 Form 10-Q"). The November 5, 2007 Form 10-Q reported net income for the third quarter of 2007 of $2.21 billion, quarter-end balance sheet

assets of $2.358 trillion, and an allowance for loan losses of $12.73 billion. The November 5, 2007 Form 10-Q reported that "Citigroup maintained its 'well-capitalized' position with a Tier 1 Capital Ratio of 7.32% at September 30, 2007." The November 5, 2007 Form 10-Q further reported that Citigroup's risk capital was $78.4 billion at September 30, 2007, and that its value at risk was $111 million.

91. In a November 6, 2007 SEC filing, Citigroup disclosed that it provided $7.6 billion of emergency financing to the seven SIVs it operates after they were unable to repay maturing debt. The SIVs drew on the $10 billion of so-called committed liquidity provided by Citigroup, according to the filing.

92. A November 6, 2007 *Bloomberg* article entitled "Citigroup's Subprime Explanation Defies Belief" described the Company's position:

> Citigroup Inc. says it isn't sure how much its subprime-related assets have fallen in value this quarter. Maybe it's $8 billion. Maybe it's $11 billion. On one point, though, Citigroup isn't budging: It says none of these declines began until after last quarter ended.
>
> ***
>
> It's as if we're supposed to believe that all this stuff at Citigroup happened after September ended .... ***And we're supposed to believe Citigroup's brass didn't have a clue any sooner.***
>
> ***
>
> Rather, the line that Citigroup has served up for investors is that it's the rating companies' doing. Forget the year-long wave of articles chronicling how far behind Moody's Investor Service and Standard & Poor's were in downgrading all the AAA-rated toxic waste that Citigroup and other banks gorged on during the subprime-mortgage binge.
>
> ***
>
> Never mind that the downgrades came long after the values of so many of these collateralized-debt obligations and other Wall Street exotica had plunged. And put aside the publicity about all the government investigations that began last quarter – the ones probing the degree to which the rating firms were either out to lunch or too close to the companies that paid them to size up their deals.

> No, Citigroup's faith in the rating companies' abilities appear to have been so unshaken that it waited until Moody's and S&P spoke before determining that its subprime holdings had tumbled ***by an additional $8 billion to $11 billion.*** For all the armies of employees at Citigroup whose job it is to monitor these assets' values, Citigroup outsourced a large chunk of its critical-thinking skill to the number jockeys at the rating companies. ***And that's putting a positive spin on it.***

(Emphasis added.)

93. On November 26, 2007, in response to a dire capital situation, massive credit market losses and sagging investor confidence, Citigroup was forced to accept a $7.5 billion capital infusion from the investment arm of the Abu Dhabi government.

94. On November 27, 2007, former SEC Chairman Arthur Levitt compared the meltdown of the subprime mortgage market to the Enron collapse and predicted more write-downs to come. Levitt went on to state, "[t]hese banks claim these entities were separate. . . [i]f so, then why are billions of dollars being spent bailing out these companies? Evidently, they were not as separate as was claimed in their accounting." In fact, on November 5, 2007, the SEC announced it was investigating the propriety of Citigroup's accounting for its SIVs.

95. In response to the catastrophic write-downs and other financial concerns, on December 11, 2007, Vikram Pandit was appointed as CEO of the Company.

96. Only days later, Citigroup was forced to bail out seven of its affiliated SIVs by bringing $49 billion in assets onto its balance sheet and further denting its depleted capital base.

97. Specifically, the Company announced that it would take over the seven troubled SIVs and assume $58 billion of debt to "avoid forced asset sales that would further erode confidence in capital markets," according to *Bloomberg*. In doing so, Citigroup took responsibility for the SIVs' $49 billion worth of assets. As a result, Moody's lowered Citigroup's credit rating to Aa3, the fourth-highest level, from Aa2.

98. By the end of 2007, the Company's exposure to hundreds of billions of dollars of severely impaired CDOs, mortgages, SIV assets, and auction rate securities ("ARS") left Citigroup's long-term viability in serious question, since the Company could not absorb the necessary write-downs and losses from all of these deteriorating assets without putting its solvency in doubt.

99. On January 15, 2008, Citigroup announced that the Company would take an additional $18.1 billion write-down for the fourth quarter 2007. In addition, Citigroup reported that the Company experienced a quarterly loss of $9.83 billion, or $1.99 per share. According to the Company, the results reflected write-downs on subprime related direct exposures in fixed income markets and increased credit costs related to U.S. consumer loans.

100. On that same day, Citigroup also announced that the Company would lower its dividend to $.32 cents per share, a 40% decline from the Company's previous dividend disbursement.

101. As a result, the Company required an additional cash infusion from both U.S. and foreign-based investors. Along with its announcement of another quarter of dismal earnings, Citigroup announced that it was raising a total of $12.5 billion of capital through the sale of convertible preferred securities in a private offering. The private offering included a $6.88 billion investment from the government of Singapore Investment Corporation Pte Ltd as well as investments from Capital Research Global Investors; Capital World Investors; the Kuwait Investment Authority; the New Jersey Division of Investment; HRH Prince Alwaleed bin Talal bin Abdulaziz Alsaud; and Sanford I. Weill (the former CEO of Citigroup) and The Weill Family Foundation.

102. Citigroup's 2007 Form 10-K, filed in early 2008 and incorporated by reference into the Offering Documents, stated that the "reasonable" and "fair value" of its previously-

disclosed CDO exposures, after write-downs, was $39.8 billion. Significantly, to assure investors that this valuation was appropriate, the Company stated that it had "refined" its valuation methodology "to reflect ongoing unfavorable market developments."

103. These statements, including the write-downs referenced in the preceding paragraph, were materially false and misleading when made. In truth, the Company's CDO securities were supported by subprime mortgages with rapidly increasing delinquency rates, and thus were virtually unsellable. Indeed, the fact that the Company could not sell these securities to any outside investors strongly indicated that their value was minimal, at best, as did the fact that the leading market indices for RMBS-linked securities had declined by two-thirds by late 2007 and had lost virtually all of their value by early 2008. Thus, rather than reporting these securities in its 2007 Form 10-K as assets with a value of almost $40 billion, Citigroup should have marked them down to reflect their true value, and taken a corresponding charge to income, which it failed to do, in violation of GAAP.

104. A February 28, 2008 *Wall Street Journal* article described Citigroup's efforts to reorganize its risk oversight in the face of its staggering losses as follows:

> Citigroup Inc. Chief Executive Vikram Pandit installed a new team of risk managers yesterday, as he seeks to avoid a repeat of the failures that last year stuck the bank with crippling losses.
>
> Citigroup tapped Brian Leach, a longtime colleague of Mr. Pandit, to be chief risk officer. Mr. Leach succeeds Jorge Bermudez, who is retiring at age 56 after barely three months as the bank's top risk manager.
>
> Along with Mr. Leach, who is 48 years old, Citigroup named four other executives to control risk in parts of the bank that have proven especially vulnerable to the real-estate downturn and the weakening U.S. economy.
>
> Mr. Leach, who until now was chief risk officer for Old Lane, a hedge fund that he co-founded with Mr. Pandit and that Citigroup bought last year, is the latest member of Mr. Pandit's inner circle to take a top role at Citigroup. He joins Don Callahan, Citigroup's chief administrative officer, who also spent years at Morgan Stanley alongside Mr. Pandit.

> After Citigroup suffered more than $20 billion in losses last year from its overexposure to risky investments, Mr. Pandit has made strengthening Citigroup's risk-management a top priority.
>
> "As our industry grapples with one of the most difficult periods in market history, we at Citi are moving aggressively to transform our risk-management culture into a significant competitive advantage," Mr. Pandit said in a memo to employees.
>
> ***New questions keep popping up about the bank's ability to grasp how much risk it is taking.*** The latest example came in Citigroup's annual report late last week.
>
> Like other Wall Street banks, Citigroup calculates the amount of risk its investment bank is taking every day with a metric known as value-at-risk, or VAR. It is designed to provide a ballpark estimate of how much money a bank's traders potentially could lose on a given day.
>
> At the end of last year, Citigroup's VAR stood at $191 million, compared with $106 million a year earlier. That is not out of line with other Wall Street firms, especially considering the tumultuous market environment in the second half of the year.
>
> But Citigroup's annual report noted an important caveat. The VAR figures don't include Citigroup's exposure to collateralized debt obligations -- which were responsible for nearly $20 billion in investment-banking losses last year. The annual report said that the CDOs weren't included in the risk tally because they are tough to value.

(Emphasis added).

105. By March 4, 2008, Citigroup shares traded below book value, a measure of what would remain for shareholders if the Company were to be liquidated.

106. By mid-March of 2008, Citigroup announced that it would lay off an additional 2,000 employees including investment bankers and traders, bringing its layoffs at Citigroup's investment bank since the mortgage crisis began to more than 6,000: about 10% of its workforce. By this time, Citigroup had written down the value of its assets by more than $20 billion. Investors hoped and expected that Citigroup had revealed to the public the true nature of its exposure to the subprime crisis at this time.

107. Beginning in mid 2008, the consequences of the Company's exposure to the subprime crisis were slowly revealed to the public, and became fully manifest by the end of

2008. Specifically, the Company embarked on a long and painful set of disclosures concerning billions of dollars worth of write-downs to the value of its subprime-related investments, significant management turnover, massive capital infusions from foreign investors to prop up the Company's reserves, decreased dividends, significantly reduced market capitalization, and withering criticism from shareholders and industry analysts alike.

108. Until this time, the Offering Documents omitted material information concerning Citigroup's true financial posture.

109. An April 1, 2008 article in *The Wall Street Journal* outlined Citigroup's response to its lack of risk oversight and resulting damaging financial results as follows:

> Citigroup Inc., as it unveiled the final in a flurry of internal organizational changes, appears to be getting started on a restructuring of its board.
>
> The banking giant said in a statement on its Web site that its board "is actively seeking new directors" and is placing a "particular emphasis on expertise in finance and investments."
>
> The board has been criticized by shareholders and, in private, by some Citigroup executives. They are frustrated with the board's failure to sound the alarm as the bank piled up big risks in the years before the credit crunch hit, saddling Citigroup with more than $20 billion in losses since last summer.
>
> The board has few members with experience in financial services. Only two outside directors -- Richard D. Parsons, Time Warner Inc.'s chairman, who ran a New York thrift in the early 1990s, and Robert L. Ryan, who was a Citibank vice president from 1975 to 1982 -- have any banking background. Mr. Ryan, Medtronic Inc.'s chief financial officer, joined the board last year.

110. On April 8, 2008, *The Wall Street Journal* reported more changes at Citigroup:

> At Citigroup Inc., C. Michael Armstrong, former CEO of AT&T Corp., is expected to step down as chairman of the New York bank's audit and risk committee, according to people familiar with the situation. Mr. Armstrong, who had held the post since 2004, is relinquishing the post amid a push by the AFL-CIO and other institutional investors to oust him from Citigroup's board.
>
> Such critics claim that Mr. Armstrong, 69 years old, failed to adequately oversee the bank's risk-management processes and therefore is partly to blame for mistakes that have battered Citigroup in recent months.

***

> At Citigroup, which has endured more than $20 billion in losses, some directors weren't aware of the company's exposure until huge write-downs started piling up, according to people familiar with the matter. Experts say that is a big failure.

111. On April 14, 2008, several shareholder advisory firms recommended that investors vote against various Citigroup directors standing for re-election. In fact, Glass Lewis & Co. opposed the re-election of nine of the Company's 14 directors to protest the board's risk-management practices.

112. Even after Citigroup belatedly began to reveal the amount of its direct exposure to tranches of subprime-backed CDOs, it failed to disclose the magnitude of other direct exposures to risky mortgage securitizations.

113. On April 18, 2008, Citigroup announced continuing losses and revealed the catastrophic consequences of its subprime exposure to the public when it revealed its first quarter 2008 financial results. *The Wall Street Journal* summarized the results as follows:

> Citigroup reported that first-quarter profit in its wealth-management division, long considered a crown jewel of the financial empire, fell 33%, dragged down by the poor performances of internal hedge funds that were ravaged by turmoil in the credit markets.
>
> The disappointing showing in the wealth-management business -- which includes the Smith Barney retail brokerage and a private bank catering to ultrarich individuals -- illustrates a pitfall of Citigroup's "universal bank" model, in which a diverse array of businesses are supposed to complement each other and yield superior results. Now, it turns out that ailing units can infect each other as well.
>
> Brokers in the wealth-management group had been peddling the hedge funds, run by Citigroup's alternative-investments division, to their clients. When the funds incurred steep losses, the wealth-management group moved to help the investors exit their positions. The bill: $250 million.
>
> The problems in the wealth-management unit were the least of Citigroup's troubles Friday. ***The company announced a $5.1 billion first-quarter net loss -- on the heels of a $9.8 billion fourth-quarter loss -- precipitated by more than $18 billion in various credit-related hits.***

> ***It has been a tough start for Citigroup Chief Executive Vikram Pandit. Since taking the job in December, he has been scrambling to replenish the bank's coffers, cleanse its books of toxic assets, and improve its risk-management and efficiency.*** But progress on those fronts isn't translating into an improved performance.
>
> "We are not happy with our financial results this quarter, although they are not completely unexpected given the assets we hold," Mr. Pandit said Friday on a conference call.
>
> Profits in all four of Citigroup's main business lines fell sharply from a year ago, and executives warned that the tough times are likely to drag into next year. Ratings firms put Citigroup's debt on watch for downgrades, but the company's shares rose 4.5%, or $1.08, to $25.11 in 4 p.m. New York Stock Exchange composite trading, as investors expressed relief the numbers weren't worse.
>
> Citigroup's investment bank endured about $12 billion in write-downs on its exposure to various parts of the credit markets, bringing the division's total losses to about $32 billion since last summer. More hits are possible.
>
> The global consumer group suffered from $6 billion in costs arising from troubled mortgages, home-equity lines, credit cards and auto loans. Losses may "extend beyond where we've seen historical levels go," said Chief Financial Officer Gary Crittenden. "We are in uncharted territory."
>
> That is among the starkest warnings sounded this week by big banks that reported first-quarter results. It suggests the industry may continue to be bogged down by losses, as the crisis that originated with subprime mortgages afflicts other types of consumer loans.
>
> And despite stockpiling more than $30 billion in capital in recent months, and repeated assurances from executives that Citigroup has a plethora of capital, Mr. Crittenden said in an interview he couldn't rule out the possibilities that Citigroup will raise more money or that the board will further cut the firm's dividend.
>
> Even the Citigroup hedge fund co-founded by Mr. Pandit struggled, leading Citigroup to record a $202 million write-down.

(Emphasis added).

114. Only a few days later, on April 21, 2008, Citigroup was forced to raise an additional $6 billion in the credit markets via an offering of preferred stock. It was only at this time that the Offering Documents' untrue statements were slowly and fully revealed to the public.

115. On April 30, 2008, as reported in *The Wall Street Journal*, Citigroup announced that it would need to, once again, raise more capital:

> Citigroup Inc., bracing for a continued surge in bad loans, said it plans to raise at least $3 billion in new capital by selling common stock.
>
> The move comes barely a week after the New York bank raised $6 billion in the credit markets, bringing the total infusion Citigroup has recently collected from investors to about $39 billion.
>
> "The market is probably not going to like more dilutive shares being issued," said Jeffery Harte, an analyst with Sandler O'Neill & Partners.

116. In fact, at the beginning of May 2008, Citigroup shares traded above $25 per share. During the next ten months, however, the revelation of Citigroup's true financial posture would lead to a near total evaporation of value. By March 2009, the Securities were trading below $1 per share.

117. On May 9, 2008, Pandit made his first major presentation to Company shareholders since taking over the Company. *The Wall Street Journal* described how investors' concerns were not placated by Pandit's presentation. In fact, the article described how many viewed Pandit's presentation as simply "more of the same" when it noted as follows:

> Mr. Pandit's affirmation of the supermarket strategy -- at Citigroup's core since the 1998 merger that created the New York company -- came with a vow that he would push to build the cohesive corporate culture and integrated back-office and technology systems that Citigroup has lacked.
>
> "In a sense, the 1998 merger was never completed," he said, leaving Citigroup with 16 different database centers -- when it really needs just two or three -- and roughly 25,000 employees to oversee the disparate systems. "We're finally going to merge it all," Mr. Pandit said at the 3 1/2-hour meeting.
>
> ***The remarks left some analysts and investors, who were crammed into an auditorium at Citigroup headquarters in midtown Manhattan, with a sense of deja vu.*** Last year, Mr. Pandit's predecessor, Charles Prince, emphasized a leaner, meaner approach, even as skepticism was mounting on Wall Street. Mortgage-related losses forced Mr. Prince to resign in November.
>
> ***Mr. Pandit's*** strategy ***"seems like more of the same,"*** said

> William Fitzpatrick, an analyst at Optique Capital Management Inc., a Racine, Wis., money-management firm that owns about 700,000 Citigroup shares. "People are getting pretty restless that we're hearing . . . the same message: 'Just hang in there.' That gets a little old.'
>
> Citigroup shares fell 67 cents, or 2.8%, to $23.63 in New York Stock Exchange composite trading Friday. The shares are down 56% in the past year.

(Emphasis added).

118. On July 14, 2008, CEO Pandit explained the Company's restructuring plan. The main goal of the plan was to reduce the Company's $2.2 trillion balance sheet.

119. An article published on *Bloomberg.com* questioned the whereabouts of "the additional $1.1 trillion of assets that New York-based Citigroup keeps off its books: trusts to sell mortgage-backed securities, financing vehicles to issue short-term debt and collateralized debt obligations, or CDOs, to repackage bonds."

120. Commenting on off-balance-sheet assets, Sam Golden, former ombudsman for the U.S. Office of the Comptroller of the Currency stated as follows: "The banks will say that it was disclosed. Investors are saying, 'Yeah, but it was cryptic. We really didn't know what you were telling us.'"

121. On July 18, 2008, Citigroup announced that it lost $2.5 billion, or 54 cents a share, in the second quarter. According to *The New York Times*, "The loss was largely caused by $7.2 billion of write-downs of Citigroup's investments in mortgages and other loans and by a weakness in the consumer market, which cost Citigroup $4.4 billion in credit losses and $2.5 billion to increase reserves. Analysts had expected a loss of 66 cents a share."

122. While the write-downs were decreasing in size, the Company continued to assure investors that its liabilities were similarly decreasing, and therefore that the Company's capital position was improving. For example, in the Company's July 18, 2008 earnings release, incorporated by reference into certain Offering Documents, Mr. Pandit underscored that "write-

downs in our Securities and Banking business [which included the Company's CDOs and SIVs] decreased by 42%" and that Citigroup had "reduced legacy assets substantially." The earnings release further assured investors that the Company's "Tier 1 Capital ratio increased to 8.7%," substantially above the 6% benchmark for "well-capitalized" status.

123. As a result of the second quarter's results, Citigroup's total losses exceeded $56 billion in credit losses and write-downs in the prior four quarters. During this time, the Company had lost more than $17 billion and watched its share price plummet nearly 70 percent since the credit market began to tighten. Nevertheless, Citigroup's shares traded at $23 per share in early October 2008.

124. Beginning in mid-November 2008, the Company went into a death spiral culminating in its stunning admission that it no longer possessed the capital to write–down the mortgage-related assets to their true value. On November 17, 2008, the Company suddenly announced that it would no longer measure the fair value of $80 billion of its assets, including its CDOs. This announcement revealed that those assets were grossly overvalued and that the Company lacked the capital to absorb the charges to its income that would occur if Citigroup properly marked those assets to their fair value. With this revelation, investors immediately abandoned the Company, causing the price of its stock to plummet and spurring calls for a Government-forced break-up, merger or bailout. On November 23, 2008, the U.S. Government was forced to agree to guarantee $326 billion of the Company's riskiest assets (including its CDOs and a wide-range of other mortgage-linked assets) against default to prevent Citigroup from being liquidated.

125. During the ensuing months, however, Citigroup *continued* to announce staggering losses. For example, on January 16, 2009, Citigroup reported a net loss for the 2008 fourth quarter of $8.29 billion due to continuing write-downs and losses in the S&B unit. The poor

results also included $6.1 billion in net credit losses and a $6.0 billion net loan loss reserve build. For the full year 2008, Citigroup reported a net loss of $18.72 billion. In November 2008, Federal regulators announced that the government had approved a radical plan to stabilize Citigroup in an arrangement in which the government could soak up billions of dollars in losses at the struggling bank. In fact, the government was forced to provide the Company with $45 billion. By the beginning of March 2009, the government agreed to convert some of the preferred stock it owned in Citigroup to common shares, gaining a 36 percent stake in the Company and boosting Citigroup's buffer against future losses.

126. The Offering Documents stated that the Company's various "mortgage securitizations," such as its CDOs, "are primarily non-recourse, thereby effectively transferring the risk of future credit losses to the purchasers of the securities issued by the trust." Citigroup failed to report appropriate write-downs of these CDO tranches, beginning no later than the fourth quarter of 2006.

B. The Offering Documents Fail to Properly Value the SIVs' Assets After Consolidation

127. Throughout the relevant period, Citigroup sponsored and managed seven Structured Investment Vehicles ("SIVs") that it kept off its balance sheet and that, by the second quarter of 2007, collectively held over $100 billion of assets. These assets included large amounts of CDOs and RMBS collateralized by subprime and low-quality mortgages, as well as a wide range of other risky exposures that dramatically lost value as the housing market downturn became a credit crisis.

128. The Company was required to absorb losses on its SIVs and consolidate them in its financial statements—as Citigroup conceded on December 13, 2007, when it consolidated $50 billion of toxic SIV assets.

129. Even after belatedly consolidating its SIVs, as further explained below, Citigroup *continued* to misstate the value of the assets (which Citigroup claimed were worth almost $50 billion) in subsequent Offering Documents. In fact, those assets, much like Citigroup's directly held CDOs, were severely impaired. By misrepresenting the nature of the SIV value of assets, Citigroup materially overstated its capital position, assets, shareholder equity and, ultimately, its ability to maintain its solvency.

130. The Company's SIVs were off-balance sheet entities, created and managed by Citigroup, which raised money by issuing commercial paper that Citigroup marketed and sold to its institutional clients. The SIVs then used these funds to purchase mortgage-backed and other securities directly from Citigroup and third parties, and used the income generated by those assets to pay the holders of their commercial paper. The SIVs were crucial to Citigroup's ability to continue its mortgage lending and securitization business because the SIVs removed unwanted assets from the Company's balance sheet and provided the Company with new capital that it used to extend fresh loans. Citigroup was, by far, the single largest sponsor of SIVs in the banking industry. Its SIVs held assets valued at $100 billion in March 2007, which represented 25% of the entire SIV market.

131. OMITTED.

132. Citigroup disclosed a combined "maximum exposure" to all of its VIEs, including its SIVs.

133. OMITTED.

134. OMITTED.

135. As noted above, as the housing market collapsed in 2006 and 2007, SIV assets deteriorated in value, which exposed the SIVs to large losses and prevented them from issuing new commercial paper to fund those potential losses. In mid-October 2007, Citigroup took

action to shield itself from the severe impairments in its SIVs' assets by seeking to transfer those assets to an even more remote entity. Specifically, on October 14, 2007, news reports disclosed that Citigroup, Bank of America, and JP Morgan were assessing a plan to create a so-called "super SIV," which was yet another off-balance sheet entity, funded collectively by all the banks, that would assume as much as $100 billion of Citigroup's SIV assets and liabilities. Notably, neither Bank of America nor JP Morgan sponsored SIVs of their own. Rather, their reason for pursuing the "super SIV" was to avoid a widespread failure of the commercial paper markets that would result if Citigroup's SIVs failed.

136. News of the "super SIV" raised questions about Citigroup's financial condition and accounting. For example, an October 14, 2007 article in *The Wall Street Journal's* "Deal Book" site titled "A Bailout for Citigroup?" explained that "it's clear that Citigroup has the most to gain from this operation. And it's clearly bad if the balance sheet of the country's largest bank were frozen for months on end as it poured money into contractual unwindings of SIV positions." Similarly, the *Financial Times* reported on October 15, 2007 that the Company was advocating for the creation of this "super SIV" as a way to try to avoid losses on its large SIV exposure, even though it insisted that those exposures were "healthy:" "Citi has created more SIVs than almost any other bank in recent years and, though its executives insist these vehicles are relatively healthy, it has come under particular scrutiny."

137. In order to calm investor concern about its SIV exposure, the Company insisted that there was no reason to consolidate the SIVs. On October 19, 2007, the Company issued a one-page fact sheet about its seven SIVs, stating that it "has no contractual obligation to provide liquidity facilities or guarantees to any of the Citi-advised SIVs."

138. Citigroup's assertion that it would not guarantee the SIVs against losses helped calm the concerns of certain investors and analysts. For example, JP Morgan issued an October

25, 2007 report noting that investors' "SIV concerns [were] overdone" because "Citi would have no interest in consolidating SIV assets," and therefore the Company's SIVs "should not have a significant impact as feared."

139. At the same time, however, certain other market observers were not convinced, and continued to raise questions about Citigroup's accounting for its SIVs, and in particular its failure to consolidate those SIVs. For example, on October 24, 2007, *Bloomberg* published an article titled "Citigroup SIV Accounting Looks Tough to Defend," which noted that Citigroup was obligated to support its SIVs because the Company had "creat[ed] expectations it would stand behind the funds," and therefore should have consolidated them all along:

> The more Citigroup, Inc. says about its structured investment vehicles, or SIVs, the more questionable the bank's accounting for them is beginning to look. . . . Okay, so it has no explicit obligation [to support the SIVs]. That begs the question: Does Citigroup have any implicit obligation to protect SIV investors from losses? Citigroup isn't saying. It's a crucial question. If Citigroup is implicitly obligated to absorb most of the SIVs' losses, then the SIVs already should be on Citigroup's balance sheet, under accounting rules.
>
> The Company has its reputation on the line . . . . Citigroup organized, pitched, and manages the SIVs it sponsors, creating expectations it would stand behind the funds and protect their investors. . . . In a September 5 report, Henry Tabe, managing director of Moody's Corp.'s SIV-ratings team, said the "blow to a bank's reputation that may be occasioned by a failure of an SIV may be more than the bank can tolerate."

140. That *Bloomberg* article further criticized the proposed plan to create a "super SIV" as follows: "So, the proposed cure for Citigroup's off-balance sheet SIVs is more offbalance-sheet accounting. There's no surer sign that Citigroup is worried about its potential SIV losses."

141. Despite investor focus on the SIVs, Citigroup expressly reiterated that it was not required to and would not consolidate the SIVs in the Company's Form 10-Q for the third

quarter of 2007, which was filed on November 5, 2007. Specifically, the Company noted that its SIVs' assets totaled approximately $80 billion.

142. Barely six weeks after flatly denying that it had to consolidate the SIVs, on December 13, 2007, Citigroup did just that, announcing that it would "support" its SIVs and therefore would "consolidate the SIVs assets and liabilities on its balance sheet under applicable accounting rules." In essence, Citigroup's act was an admission that, contrary to its prior representations, it was required to absorb losses suffered by its SIVs. Consolidating the SIVs severely stressed Citigroup's capital position, as it brought billions of CDOs, RMBS, and other mortgage-related debt onto the Company's balance sheet and materially increased the Company's direct exposure to risky securities by another $50 billion.

143. The financial press immediately recognized that the Company's SIV consolidation flatly contradicted its prior disclosures on the subject, and marked the second time in roughly six weeks that the Company had shocked investors by admitting its true exposure to tens of billions of dollars worth of impaired assets. For example, on December 14, 2007, the *Financial Times* wrote that:

> This is the second time unwanted assets have suddenly appeared on the Citigroup balance sheet. The bank's knack for landing in the blackest spots of the market is starting to look hard to match. First, investors were shocked to discover its exposure to collateralised debt obligations had ballooned . . . . And now, $49bn worth of assets in off-balance sheet vehicles will be brought on to the balance sheet as well. Investors will feel particularly aggrieved at this latest move, given how clearly Citi had said it would not do anything to consolidate these assets. Such a statement suggested rather more control over events than is possible in these markets.

144. Analysts also recognized that the SIV consolidation constrained the Company's capital adequacy. For example, on December 14, 2007, CIBC World Markets issued a report stating that the consolidation "will further imperil [the Company's] fragile capital ratios going into the fourth quarter and surely pressure the company to continue to raise capital, sell assets,

and cut its dividend." That report further noted that the Company's capital ratio was "precariously low," and that, "[a]t a minimum, we expect the rating agencies to continue to seriously reassess their ratings on C" – an especially negative development for holders of the Company's Bond Class Securities. Indeed, on December 13 and 14, 2007, the value of Citigroup's Bond Class Securities declined significantly.

145. Even after it belatedly consolidated its SIVs, throughout 2008 Citigroup continued to make untrue statements of material fact, and/or omitted material facts, regarding the effect of the SIV assets on the Company's financial position. Specifically, the Company brought the $49 billion of SIV assets onto its balance sheet and represented that the assets were not impaired, when in fact they were severely impaired, and these impairments only deepened throughout 2008.

146. On December 13, 2007, the Company issued a press release, later filed with the SEC on Form 8-K (the "December 14, 2007 Form 8-K"), in which it admitted its obligation to consolidate its SIVs. Even so, the December 14, 2007 Form 8-K contained untrue statements of material fact about the quality of the SIVs' assets and their impact on the Company's financial condition. Specifically, December 14, 2007 Form 8-K stated that the SIVs' assets had a "high credit quality" and therefore "Citi's credit exposure under its commitment is substantially limited." Those statements were materially untrue because the SIV assets were not of "high quality," but included similarly toxic RMBS securities and other assets that infected Citigroup's balance sheet and which were experiencing substantially greater losses than Citigroup reported. Further, the December 14, 2007 Form 8-K stated that the SIVs' assets were worth more than $49 billion. In fact, those assets were substantially impaired.

147. Significantly, in its December 13, 2007 press release, the Company maintained that one of the "key" reasons why it consolidated its SIVs was because "[g]iven the high credit quality of the SIV assets, Citi's credit exposure under its commitment is substantially limited."

148. The Company further assured investors that it expected to suffer "little or no" loss due to its SIV consolidation, and expected to "return to its targeted capital ratios by the end of the second quarter of 2008."

149. Over the following two quarters, the Company continued to represent that the assets contained in its SIVs were performing well and were not threatening the Company's capital adequacy. For example, on April 15, 2008, Citigroup announced a nominal $212 million write-down on the $49 billion in SIV assets. Then, in August 2008, Citigroup's second quarter 2008 Form 10-Q actually reported an $11 million increase in the value of the Company's SIV assets, indicating that the balance sheet stress that had worried investors in December 2007 was subsiding and the Company's financial position was strengthening.

150. The Company's statements in the Offering Documents following December 13, 2007 about the value of its SIV assets (as well as its capital position, balance sheet strength and shareholder equity, among other things) were untrue because the SIV assets were, in fact, significantly impaired and worth dramatically less than Citigroup had reported. The Class did not learn the truth about the Company's impaired SIV assets until November 19, 2008, when the Company announced that it was reclassifying the remaining SIV assets in such a way that future earnings would be immune from further write-down of the SIVs' assets.

151. Indeed, as revealed at that time, the Company had been desperately trying to sell its toxic SIV assets, but could not find a buyer willing to take them. Thus, on November 19, 2008, Citigroup announced that it had paid its own SIVs $17 billion to unwind and compensate the holders of the SIVs' commercial paper, which meant that Citigroup would now directly

assume the liabilities of the SIVs, pushing the Company closer to insolvency. Citigroup's decision further revealed that those assets were worth far less than Citigroup had reported, and that Citigroup could not survive the charges it would be required to take if it properly marked those assets to their fair value.

152. On November 19, 2008, *Dow Jones* reported that investors had begun to "question the survival prospects of the U.S. banking giant." *The Wall Street Journal* noted that the Company's announcements of November 17 and 19 "stoked investor fears that Citigroup could be swamped by toxic assets flooding back onto its books." On November 20, 2008, Ladenburg Thalman issued a report stating that it "received numerous calls today asking [] if Citigroup is about to fail." Additional reports began to emerge that Citigroup was in desperate talks with the U.S. Government regarding a forced break-up, a forced merger, or a massive bailout package.

153. The value of the Securities fell on the news that the Company was directly assuming its SIVs' deeply impaired assets. Indeed, the Company's direct exposure to its SIVs' severely impaired assets had pushed it to the precipice of insolvency. Just four days after Citigroup assumed its SIVs' assets, on November 23, 2008, the Company's financial condition was so imperiled that the U.S. government was forced to agree to a $326 billion bailout package. As part of that bailout, the Government agreed to absorb substantial losses on the mortgage-linked and other assets formerly contained in Citigroup's SIVs, as Citigroup lacked the capital to do so itself.

154. OMITTED.

C. The Offering Documents Report Materially Understated Reserves for Citigroup's Residential Mortgage Loan Portfolio

155. Before and during the relevant period, Citigroup accumulated approximately $213 billion of residential mortgage loans that were of such poor quality that they would, and did,

predictably default in large numbers. Despite the likelihood of widespread defaults in the Company's mortgage loan portfolio, the Offering Documents reported understated allowances for loan losses, which materially overstated the Company's net income at each reporting period and inflated its capital ratios.

156. Citigroup acquired mortgage loans in two ways. First, it originated them directly through its lending unit, CitiMortgage. Second, the Company purchased loans from third-party mortgage originators, or "correspondent" lenders. After acquiring these loans, the Company often used them to collateralize its RMBS and CDOs, which in many instances were then sold to its SIVs. Thus, the Company's subprime mortgage business produced the assets that supported its structured finance business.

157. In order to generate enough mortgages so that the Company could continually issue new RMBS and CDOs, Citigroup aggressively expanded its subprime mortgage originations beginning in 2005. According to a December 2006 *Mortgage Banking Magazine* article, by 2006, Citigroup was the fourth largest overall mortgage originator, with $132.9 billion of originations in the first nine months of the year. Indeed, Citigroup's first mortgage portfolio increased from $88.4 billion in 2002 to $150 billion at the end of 2007. During this time, its second mortgage portfolio rose even more dramatically—1,000%— from $6.3 billion to $63 billion.

158. As part of this overall expansion, Citigroup materially increased its exposure to several kinds of particularly risky loans. For example, the Company acquired tens of billions of dollars worth of mortgages to borrowers with subprime credit scores, known in the mortgage industry as a Fair Isaac Corporation ("FICO") score of 620 or below. Mortgage loans issued to consumers with such low credit scores were especially risky because, at the time the Company extended the loan, the borrower already had demonstrated an inability to repay debts, as

evidenced by the low FICO score. Moreover, these borrowers had demonstrated their inability to repay their debts even in normal market conditions, meaning that as the housing market deteriorated, the likelihood of default increased substantially. By the end of 2007, the Company had direct exposure to at least $23 billion of subprime first mortgages, and billions more in exposure to subprime second mortgages.

159. Further, the Company acquired tens of billions of dollars of loans with loan-tovalue ratios ("LTV") of over 90%. These loans posed special risks to Citigroup because the borrower had virtually no personal equity in the property. Accordingly, the borrower had much less motivation to repay the loan in times of stress, as occurred throughout 2006 forward. Moreover, these loans were risky because they provided almost no cushion to absorb losses through foreclosures in the event of declining housing prices. As housing prices declined in 2006 and 2007, it became exceedingly difficult for high LTV borrowers to repay their loans through sales or further refinancings, and the risk of default therefore materially increased. By the end of 2007, the Company possessed approximately $51 billion of mortgages with LTVs above 90%.

160. The Company also dramatically increased its portfolio of home equity lines of credit, or "HELOCs." A HELOC is a second mortgage loan drawn against the equity in a home (*i.e.*, drawn against the difference between the value of the remaining first mortgage and the present market value of the home). HELOCs posed significant risks because payment was directly related to the borrower's ability to pay the underlying first mortgage. Because the HELOCs and other second-liens were the last loans to be repaid, as housing prices decreased, the risk and magnitude of losses on HELOCs became far more severe than on first-liens. Citigroup aggressively assumed this risk, with HELOC originations growing at a staggering pace, from $800 million in 1999 to about $48 billion in 2006. By the end of 2007, the Company held $62 billion worth of HELOCs.

161. In addition, the Company expanded its portfolio of so-called "Alt-A" loans. An Alt-A loan does not require proof of the borrower's income. Because the mortgage lender had not verified that the borrower can afford to repay the loan, Alt-A loans posed an extremely high risk of default. For this reason, Alt-A loans are commonly referred to as "liar's loans." By year end 2007, Citigroup had accumulated $58 billion in Alt-A loans.

162. Citigroup compounded the danger of risky underwriting by frequently issuing mortgages that had multiple risk-increasing characteristics, such as a HELOC with greater than 90% LTV, made to a borrower with low a FICO score.

163. Finally, the Company purchased a growing volume of loans from correspondent subprime lenders who originated similarly risky subprime, Alt-A, HELOC, and high LTV loans without adequately ensuring that the borrower could repay the loan. The Company's correspondent loan originators included some of the country's most reckless lenders, such as Accredited Home Lenders and New Century. Their underwriting was so deficient that CitiMortgage eventually brought lawsuits against more than 20 of its correspondent lenders, alleging that the mortgages they produced failed to comply with CitiMortgage's own purchasing requirements. Nevertheless, the Company's correspondent channel loan volume increased from $69 billion at 2005 to $89 billion at 2006, and stood at more than $94 billion by year-end 2007.

164. The Offering Documents, however, reported materially understated loss reserves. Each quarter, the Company was required under GAAP to establish a loan loss reserve sufficient to cover probable losses in its mortgage portfolio. Accordingly, the level of the Company's loss reserve was an especially important piece of information to investors because it reflected the losses that the Company was likely to incur on its $213 billion mortgage portfolio. At each reporting period, the Offering Documents materially understated the Company's loss reserves.

165. The purpose of loan loss reserves is to provide a current reserve against likely credit losses inherent in a company's portfolio. Under Statement of Financial Accounting Standard ("SFAS or FAS") 5, Citigroup was supposed to set a reserve when (a) "it is probable that an asset had been impaired . . . at the date of the financial statements," and (b) "the amount of the loss can be reasonably estimated." (Emphasis added.)

166. Moreover, SFAS 5 required detailed disclosures, including estimates of losses, even when losses on mortgage exposures were only "reasonably possible." Thus, GAAP required the Company to establish a reserve that reflected not merely the amount of loans that already had defaulted and been charged-off at each reporting period, but also reflected the additional amount of loans that were likely to default but had not yet done so.

167. Rather than comply with this requirement – which would have signaled to investors that the Company's mortgage portfolio was deteriorating and would suffer large losses – the Company's loan loss reserves (which it referred to as an "Allowance for Loan Losses") reflected only the loans that had already defaulted and been charged off in that reporting period, in violation of GAAP.

168. Indeed, the Company's reserve levels on its North American loan portfolio tracked the actual charge-offs, called net credit losses or "NCL" ratio, of that portfolio. Moreover, from the third quarter of 2006 through the third quarter of 2007, the Company's reserves for this portfolio were substantially below the actual losses for that portfolio. In other words, even as the Company dramatically expanded its volume of risky mortgage loans, Citigroup reported "likely" losses at a level even lower than its "actual" losses. This was a violation of SFAS 5, which, as noted above, required the Company to establish a reserve not just for its actual charge-offs, but also for those additional loans that were likely to default because of the dramatically increased risks in the Company's mortgage portfolio, but had not yet done so.

169. Moreover, moving beyond the North American consumer portfolio, as Citigroup dramatically *increased* its volume of risky loans from 2005 through 2007, it substantially *decreased* its reserves as a percentage of total loans.

170. In light of the Company's massive increase in high-risk loans, coupled with the collapse of the housing market since year-end 2005, Citigroup should have increased its reserves substantially throughout 2006 and 2007. Yet, in violation of GAAP, by the first quarter of 2006, Citigroup had materially reduced its reserves as a percentage of its net loan balance and continued to further reduce that reserve through 2006 and 2007.

171. Indeed, by year-end 2006, the Company maintained a reserve of only 1.32% of its total net loan balance—just half of the 2.64% it maintained in 2003, when the Company's loans were much less risky, and before the housing market began to plummet.

172. At a bare minimum, the Company should have maintained its allowance for losses at the 2% level to which it adhered before significantly increasing its portfolio of risky loans in 2005. Measured against this 2% benchmark—which still was far too low given the increased size and risk of the mortgage portfolio and the housing market collapse—Citigroup understated its loan loss reserves by $2.6 billion as of the 2006 first quarter, $3.6 billion as of the 2006 second quarter, more than $4.1 billion as of the 2006 third quarter, more than $4.6 billion as of year-end 2006, $4.4 billion as of the 2007 first quarter, $4.5 billion as of the 2007 second quarter, and $2.8 billion as of the 2007 third quarter. Measured against a higher loan loss reserve percentage, which was appropriate in light of the Company's massive volume of risky loans and the severely deteriorating housing market, the Company's understatements are even greater.

173. Indeed, Citigroup's loan loss reserves remained substantially understated in the fourth quarter of 2007 and in 2008. By year end 2007, it was widely accepted that the housing market had collapsed long ago. Yet, Citigroup only increased reserves to barely above the 2%

level—2.07% as of year-end 2007 and 2.31% as of the 2008 first quarter. And, as of the 2008 second quarter, it increased reserves only to a level marginally higher than in 2003—2.78%.

174. These levels failed to reflect losses that were both probable and estimable given the housing market collapse. At even a 3% reserve level —which was still not adequate to reflect the risky nature of the Company's portfolio and the housing market collapse—the Company's loss reserves were understated by $7.2 billion at year-end 2007, $4.3 billion at the first quarter of 2008 and $1.6 billion at the second quarter of 2008. Indeed, in the third quarter of 2008, it increased its reserves by more than $3.2 billion – or 20% of the Company's total reserves as of year-end 2007.

175. In short, the Offering Documents reported materially understated loss reserves. Because the Company's reserves were understated, the Company failed to take the required charges against income. Consequently, the Offering Documents also reported materially overstated amounts of net income.

D. Citigroup Finally Reveals that Its CDOs, Mortgage Portfolio and SIV Assets Exposures Left the Company Dangerously Undercapitalized, Necessitating the Government's $326 Billion Bailout

176. As set forth herein, the Offering Documents contained untrue statements of material fact and/or omitted to disclose material facts regarding: (3) Citigroup's approximately $213 billion portfolio of residential mortgage loans; (4) the Company's "well capitalized" status; (5) the Company's compliance with GAAP.

177. Each of these untrue statements of fact and/or omissions was highly material to investors because the undisclosed exposures noted above, as well as Citigroup's multi-hundred billion dollar residential mortgage portfolio, posed a substantial risk to the Company's solvency and capital adequacy – the basic measure of financial viability for a financial institution like Citigroup. The fundamental metric of Citigroup's capital adequacy was its Tier 1 capital ratio,

which measured the Company's readily available capital as a percentage of assets that were potentially at risk of default (known as its "Risk-Adjusted Assets"). In order to be considered "well capitalized," federal regulations required the Company to maintain a Tier 1 capital ratio of at least 6% (*i.e.*, capital equal to at least 6% of its risk adjusted assets). Maintaining its well capitalized status was critical to Citigroup's financial condition. If the Company accumulated large amounts of risky exposures that depleted its Tier 1 capital, investors would conclude that the Company lacked the capital to fund its potential losses and would lose faith in its viability. Accordingly, in each of its SEC filings issued during the relevant period, Citigroup represented that it "maintained a 'well capitalized' position."

178. By the end of 2007, the Company's exposure to hundreds of billions of dollars of severely impaired CDOs, mortgages, SIV assets, and ARS left Citigroup's long-term viability in serious question, since the Company could not absorb the necessary write-downs and losses from all of these deteriorating assets without putting its solvency in doubt. Indeed, from the second quarter of 2007 through August 2008, the Company recorded a series of write-downs on these exposures: (a) a $28 billion write-down on its subprime-backed CDO exposures; (b) a $1.3 billion write-down of its Alt-A RMBS; (c) a $1.5 billion write-down of its ARS portfolio; and (d) a $200 million write-down of its SIVs.

179. Although totaling approximately $31 billion, these write-downs failed to reflect the true value of the Company's remaining assets or reveal the actual impact of these "assets" on the Company's financial condition. In fact, because the write-downs actually decreased in size throughout the relevant period—and the Company even reported gains on certain of these assets—this signaled to investors that the quality of these assets was improving, and any adverse impact on the Citigroup's financial condition was subsiding. For example, the Company's CDO write-downs dramatically decreased from $16.5 billion in the fourth quarter of 2007 to $5.9

billion in the first quarter of 2008 and $3.4 billion in the second quarter of 2008. Similarly, the Company reported a relatively modest $212 write-down on its SIVs in the first quarter of 2008, and then recorded a gain of $11 million the next quarter.

180. While the write-downs were decreasing in size, the Company continued to assure investors that its liabilities were similarly decreasing, and therefore that the Company's capital position was improving. For example, in the Company's July 18, 2008 earnings release, incorporated by reference into the Offering Documents, Mr. Pandit underscored that "write-downs in our Securities and Banking business [which included the Company's CDOs and SIVs] decreased by 42%" and that Citigroup had "reduced legacy assets substantially." The earnings release further assured investors that the Company's "Tier 1 Capital ratio increased to 8.7%," substantially above the 6% benchmark for "well-capitalized" status.

181. In fact, throughout 2008 – including just days before the U.S. Government guarantee – the Company repeatedly assured investors that it was well capitalized and therefore possessed ample funds to withstand any losses. For example, in the 2007 Form 10-K, the Company noted that "[d]uring December 2007 and January 2008 we raised over $30 billion to strengthen our capital base." Consequently, the Company stated, it "maintained its 'well capitalized' position with a Tier 1 capital ratio of 7.12% at December 31, 2007." Similarly, Mr. Pandit repeatedly informed investors throughout 2008 that Citigroup had "made sure" that its subprime-backed assets were "well capitalized," and the Company had achieved "the capital strength that will allow us to refocus on earnings and earnings growth."

182. In truth, however, the Company's capital adequacy was in serious jeopardy. In fact, in April 2008, the Federal Reserve sent a letter to Citigroup's Board advising them that the negative trends, additional losses and pressures on the Company's earnings, Citigroup had insufficient liquidity and capital adequacy levels for 2008.

183. On October 14, 2008, Citigroup received a $25 billion capital infusion from the U.S. Government through TARP, which was the maximum amount that the Company could have received under TARP's terms.

184. After receiving that $25 billion, the Company continued to misrepresent its exposure to the severely impaired assets described herein and their impact on its capital adequacy. Indeed, as late as November 2008, Citigroup *continued* to insist that its financial position was strong and that it had ample capital to withstand any mortgage-related losses. On November 17, 2008, Citigroup held a "Town Hall" meeting for its employees. At that meeting – and despite the fact that Citigroup was just six days away from requiring a $326 billion bailout to prevent its collapse – the Company repeatedly assured investors that its capital position was strong. Specifically, Mr. Pandit stated that Citigroup had "significantly reduced our risky assets while putting the company in a very strong capital position," and was "very well positioned from a capital standpoint to weather future potential challenges."

185. At this same meeting, however, Citigroup made another announcement that signaled to investors that the Company's CDOs, mortgage portfolio, SIV assets, and ARS were materially impaired – so impaired, in fact, that Citigroup had effectively given up attempting to attribute any value to them. Specifically, the Company announced that it would cease valuing $80 billion of assets at their market price each reporting period by removing these assets from the Company's trading portfolio and reclassify them as "held to maturity," "held for sale," or "held for investment." By doing so, Citigroup hoped that this re-categorization of $80 billion in assets would allow the Company to avoid taking large write-downs on those exposures at each quarter, like the write-downs noted above.

186. Although the Company did not disclose the precise composition of these recategorized assets, analysts concluded that the "risky" assets included within the $80 billion

consisted of Citigroup's CDOs, SIV assets, RMBS, and ARS. For example, Buckingham issued a November 17, 2008 report noting that the Company's exposure to "risky assets" included CDOs, other "mortgage assets," and SIV assets. Similarly, *The Wall Street Journal's* Deal Journal site reported that the $80 billion included CDOs, RMBS, and ARS.

187. The Company's decision to avoid additional write-downs on this $80 billion of impaired assets shocked the market because it was an admission that these assets had either no value, or such little value Citigroup could not afford to absorb the write-downs it would have to take if it properly valued its assets. Indeed, in response to the Company's November 17 disclosure, investors immediately began to realize that the Company was essentially insolvent. For example, on November 18, 2008 Ladenburg Thalmann issued a report noting that investors "do not trust the company's balance sheet," and that there existed a "belief that the bank's securities holdings are overstated." On November 19, 2008, *Dow Jones* reported that investors had begun to "question the survival prospects of the U.S. banking giant." Likewise, on November 20, 2008, *The Wall Street Journal* reported that "[t]he market is losing confidence in Citigroup" because of the "balance sheet maneuver" of reclassifying the $80 billion in troubled assets:

> The market is losing confidence in Citigroup. In the wake of some planned balance-sheet maneuvers, it isn't tough to see why. . . . Largely overlooked in the presentation materials release to investors was a disclosure that this quarter the firm would reclassify about $80 billion in assets. Those assets wouldn't have to be marked to market prices. Or they could be held in a way that keeps such losses from hitting earnings. That has unnerved investors, since such holdings include risky holdings such as collateralized debt obligations – structured securities that have already led to billions in write-downs.

188. Immediately following the Company's disclosures at the Town Hall meeting, reports began to emerge that Citigroup executives were considering breaking the Company apart and selling its various business units, or merging with a competitor. However, distrust of the

Company's solvency prevented any deal, according to a November 21, 2008 article by *Dow Jones*. That article reported that Citigroup could not find a merger partner because "of wariness about what toxic assets remain on Citi's books. Nor would other banks be willing to trust Citi's claims about the strength of its balance sheet."

189. With Citigroup on the brink of collapse, additional reports began emerging that the U.S. Government would have to provide the Company with huge amounts of capital just to prevent its liquidation. On November 22, 2008, *The New York Times* reported that analysts had concluded that the Company had "two remaining options: a federally forced merger or nationalization." That same day, *The Wall Street Journal* reported that "Citigroup officials have been talking in recent days to Treasury Department and Federal Reserve officials, and those discussions are expected to continue through the weekend." In a separate article, *The New York Times* further reported that Citigroup required "a new financial lifeline" from the Government.

190. As investors realized that Citigroup was close to insolvent, the price of the Securities collapsed. On November 23, 2008, investors' worst fears about the Company's true financial condition were confirmed. On that day, the Company announced that it had reached an agreement with the U.S. Government to rescue Citigroup from imminent liquidation with a $326 billion bailout package—the largest in history. Pursuant to the terms of that agreement, the Government agreed to guarantee $306 billion of the Company's mortgage-related assets. Although Citigroup agreed to absorb the first $29 billion of losses, with the Government agreeing to absorb 90% of the remaining losses, the Company lacked even the capital to fund its portion of the agreement. Indeed, pursuant to the agreement, the Government infused Citigroup with $20 billion of new capital that it immediately required to survive. The Company's financial position was so dire that the Government arranged the bailout over a weekend, and announced it

on a Sunday—indicating that without immediate guarantees and cash infusions totaling $326 billion, the Company would have been liquidated as early as Monday, November 24.

191. According to the Term Sheet that generally described the Government bailout, the $306 billion of assets consisted principally of the Company's "loans and securities backed by residential real estate," such as its CDOs, RMBS, residential mortgage loans, and the mortgage related assets that formerly were contained within its SIVs. Indeed, a November 24, 2008 report by Fox-Pitt noted that the Government bailout "appear[ed] to include" $305 billion in "real estate-related 'problem assets,'" and excluded "non-residential consumer" assets and the Company's "corporate loan portfolio." Further, a November 24, 2008 report by Oppenheimer stated that, although it was "unclear" which assets were included in the $306 billion guarantee, the Company's "risky exposures" included its CDOs, RMBS, SIV assets, and ARS.

192. As *The Wall Street Journal* reported on November 24, 2008, the Company's claims of capital adequacy—which were made as late as November 17—flatly contradicted the reality of the Company's insolvency due to its exposure to the toxic assets described above:

> The federal government agreed Sunday night to rescue Citigroup Inc. by helping to absorb potentially hundreds of billions of dollars in losses on toxic assets on its balance sheet and injecting fresh capital into the troubled financial giant. . . Even as they assured employees and investors last week that the company was on sound financial footing, Citigroup executives and directors knew they needed to do something fast to stabilize their company.

193. Despite the Company's disclosures made between November 17 and 23, significant uncertainty remained about Citigroup's financial condition. Indeed, the Company's exposure to impaired mortgage-related assets remained so large that, according to *The Wall Street Journal* article, "it's not clear whether [the bailout] will be enough to stabilize Citigroup." Reports indicated that Citigroup's toxic exposures were so large that the Government bailout, despite its staggering size, was insufficient to stabilize the Company. On January 12 and 13,

2009, *The Wall Street Journal* reported that Citigroup would likely report a loss of "at least $10 billion" for the fourth quarter of 2008. In order to fund these continuing losses, *The Wall Street Journal* reported, Citigroup had embarked on a "drastic plan to shed a host of businesses" and sell them off, thereby dismantling the world's largest bank. Moreover, Citigroup's mortgage-related assets were so severely impaired that the Company was seeking to form an entirely separate entity – the so-called "bad bank" – to assume those toxic assets and liabilities, so that they could no longer damage Citigroup.

194. In short, the Offering Documents reported that the Company was "well-capitalized" because it had maintained a Tier 1 capital ratio substantially above 6%. Similarly, each of those SEC filings reported the Company's "risk capital," which Citigroup stated was "the amount of capital required to absorb potential unexpected economic losses resulting from extremely severe events over a one-year time period." Likewise, the Offering Documents reported the Company's "value at risk," which Citigroup stated was the amount of the "potential decline" of the Company's trading securities—such as its CDO securities—over a one-day holding period, calculated to a "99% confidence level." Each of Citigroup's reported Tier 1 capital ratio, its risk capital and its value at risk was materially misstated because the Company failed to disclose and properly account for its various mortgage related assets and liabilities.

E. Defendants Violated GAAP

195. Citigroup's financial statements issued during the relevant period also failed to comply with GAAP. Regulation S-X requires that interim financial statements, such as those filed in Citigroup's Form 10-Qs, must also comply with GAAP, with the exception that interim financial statements need not include disclosures which would be duplicative of disclosures accompanying annual financial statements.

196. Citigroup's publicly-filed quarterly and annual financial statements between the first quarter of 2006 and the second quarter of 2008, which were included or incorporated in the Offering Documents, failed to comply with numerous provisions of GAAP. Among other things, the Company's financial statements during the relevant period failed to: (2) report proper reserves in connection with Citigroup's subprime mortgage portfolio for the first quarter of 2006 through the first two quarters of 2008; (3) properly disclose the risks arising from its SIVs and from CDOs for which it issued liquidity puts; and (4) report timely write-downs and impairments on the value of the Company's CDOs backed by subprime mortgages as well as the SIV assets it belatedly consolidated. These violations of GAAP and other disclosure requirements resulted in material misstatements in Citigroup's financial statements from the first quarter of 2006 through the second quarter of 2008.

197. Citigroup's financial statements violated GAAP because they failed to properly disclose material concentrations of risk arising from subprime backed CDOs and failed to disclose risks related to Citigroup's continuing involvement with the SIVs it sponsored.

198. Paragraph 15A of SFAS 107, Disclosures about Fair Value of Financial Instruments, required Citigroup to disclose "all significant concentrations of credit risk from all financial instruments, whether from an individual counterparty or groups of counterparties." Group concentrations of credit risk exist if a number of counterparties have similar economic characteristics that would cause their ability to meet contractual obligations to be similarly affected by changes in economic or other conditions. Further, if a significant concentration of risk represents a material contingency, the risk must be disclosed in the Company's interim financial statements in accordance with APB No. 28, Interim Financial Reporting.

199. Similarly, SOP No. 94-6, Disclosure of Certain Risks and Uncertainties ("SOP 94-6"), requires disclosures to be made in financial statements regarding any vulnerabilities

arising due to the fact that the business is exposed to certain risks and uncertainties that might have a "severe impact" on its future operations. SOP 94-6 defines a "severe impact" as a "significant financially disruptive effect on the normal functioning of the entity."

200. OMITTED.

201. Citigroup misstated the fair value of its CDOs. As explained herein, after putting these securities on its balance sheet, the Company violated GAAP by failing to report the true and severely depressed value of these CDO securities.

202. Citigroup classified its CDOs and CDO-related exposures as "trading securities," which are securities that are bought and held principally for the purpose of being sold in the near term. Under FAS No. 115, *Accounting for Investments in Certain Debt Securities,* these securities are to be measured at fair value in the statement of financial position, with any changes to "fair value" to be charged against earnings.

203. For its financial statements beginning January 1, 2007, Citigroup also applied Statements of Financial Accounting Standards No. 157, *Fair Value Measurements*" ("SFAS No. 157"). SFAS No. 157 defines fair value as "the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants." SFAS 157 emphasizes that fair value is "not an entity specific measurement," and "should be determined based on the assumptions that market participants would use in pricing the asset or liability."

204. As described herein, Citigroup's financial statements significantly overstated the fair value of its CDO assets in its Form 10-K for 2006 and in its financial statements thereafter. These misstatements resulted in corresponding overstatements of pre-tax income, financial instruments owned, total assets, retained earnings, and total shareholders equity within Citigroup's consolidated financial statements. The effect of these misstatements was also to inflate Citigroup's Tier 1 capital ratios.

205. In valuing its CDO securities, Citigroup violated GAAP in several ways. First, until, September 30, 2007 (when Citigroup took a $500 million write-down on its super senior CDO exposures and a further $1 billion write-down on its other CDO-related exposures), the Company maintained these positions on its books at original cost. However, at the very same time, Citigroup was simply unable to sell these securities to any outside investor. Therefore, Citigroup's valuation ignored a directly observable "Level 1" input – that is, Citigroup's inability to sell the CDOs at par – which established that these securities were not worth their par value.

206. Second, Citigroup carried its CDO assets at values that bore no relationship to the most directly applicable market index. In February 2007, a consortium of banks – including Citigroup – launched the TABX index, which attempts to replicate the market value of a basket of RMBS, similar in structure to the CDOs that Citigroup held. Like CDOs, which include senior and junior tranches, the TABX index accounts for high levels of subordination and therefore provides a benchmark for the value of senior CDO positions such as those owned by Citigroup. The most senior index is the TABX.HE 07-1 06-2 40-100 (the "40-100 TABX") because it is tied to underlying RMBS collateral assuming a subordination of 40%. This is substantially higher than the subordination of Citigroup's owned "super senior" exposures, and therefore provides a conservative benchmark against which to measure the decline in value of the Company's CDOs.

207. Third, besides disregarding the most directly applicable observable market inputs shown by the TABX index and its own marketing experience, Citigroup's methodology to value its CDO holdings was fundamentally flawed in other respects. Prior to the first quarter of 2008, Citigroup applied a model that used a discount rate for cash flows based on Collateralized Loan Obligations ("CLOs"). CLOs are backed by pooled assets of corporate loans and have no exposure to residential mortgages whatsoever. As a result, while the housing market deteriorated,

the discount rate that Citigroup applied did not reflect the further risk that existed in subprime-backed exposures. Indeed, a February 15, 2006 Citigroup publication titled, *A General Review of CDO Valuation Methods*, warned against the very technique that Citigroup used, stating that "one must take care to make sure that only appropriate comparisons are made" and that "it would not be fair to compare the prices of ABS CDO triple-B bonds to CLO triple-B bonds." (Emphasis added).

SUMMARY OF UNTRUE STATEMENTS OF MATERIAL FACT

208. **May 5, 2006 10-Q, August 4, 2006 10-Q, November 3, 2006 10-Q, February 23, 2007 10-K, May 4, 2007 10-Q, and August 3, 2007 10-Q:**

- Reported materially understated loss reserves. Because the Company's reserves were understated, the Company failed to take the required charges against income.

- Reported that the Company was "well-capitalized" because it had maintained a Tier 1 capital ratio substantially above 6% and that the Company's "risk capital," which Citigroup stated was "the amount of capital required to absorb potential unexpected economic losses resulting from extremely severe events over a one-year time period." Likewise, reported the Company's "value at risk," which Citigroup stated was the amount of the "potential decline" of the Company's trading securities—such as its CDO securities—over a one-day holding period, calculated to a "99% confidence level." Each of Citigroup's reported Tier 1 capital ratio, its risk capital and its value at risk was materially misstated because the Company failed to disclose and properly account for its various mortgage related assets and liabilities.

- Stated that the Company's financials complied with GAAP.

209. **November 5, 2007 10-Q:**

- Reported earnings, assets, loss reserves, Tier 1 capital ratio, and risk capital were each materially untrue because the Form 10-Q failed to disclose and properly account for: (d) that Citigroup faced a concentration of risk tied to the plummeting housing market that jeopardized its capital adequacy due to the Company's large and growing exposure to CDOs, SIVs, RMBS, and hundreds of billions of dollars of subprime, Alt-A, HELOC, high LTV, and correspondent loans.

- In addition, Citigroup's allowance for loan losses was materially deficient. The Company understated its loan reserves by at least $4.13 billion, and thus

overstated its net income by at least the same amount. Also stated that Company's financial statements complied with GAAP. As set forth herein, this statement was untrue.

210. **December 14, 2007 8-K:**

- Stated that the SIVs' assets had a "high credit quality" and therefore "Citi's credit exposure under its commitment is substantially limited." Those statements were materially untrue because the SIV assets were not of "high quality," but included similarly toxic RMBS securities and other assets that infected Citigroup's balance sheet and which were experiencing substantially greater losses than Citigroup reported. Also stated that the SIVs' assets were worth more than $49 billion. In fact, those assets were substantially impaired.

211. **February 22, 2008 10-K:**

- Reported earnings, assets, loss reserves, Tier 1 capital ratio, and value at risk were each materially untrue because the document failed to disclose and account for: (a) the severe impairments to the Company's direct exposure to as much as $66 billion of subprime-backed CDOs; (b) the severe impairments to the Company's now-consolidated SIV assets; and (c) Citigroup's exposure to a concentration of risk tied to the plummeting housing market that jeopardized its capital adequacy due to the Company's large and growing exposure to CDOs, SIVs, RMBS, and hundreds of billions of dollars of subprime, Alt103 A, HELOC, high LTV, and correspondent loans. Further, Citigroup's allowance for loan losses was materially deficient. The document also stated that the Company's financial statements complied with GAAP. As set forth above, this statement was untrue.

212. **May 2, 2008 10-Q:**

- Reiterated the Company's announced first quarter results and stated that the Company had maintained its "well-capitalized" status. These statements were materially false. As set forth above, the mortgage-related and other toxic assets held by the Company were so impaired that the Company was precariously close to insolvency.

213. **August 1, 2008 10-Q:**

- Reiterated previously announced financial results and again stated that the Company had maintained its "well-capitalized" status. The statements relating to the second quarter of 2008 were materially false. As set forth herein, only four months later, Citigroup required the largest government bailout in history precisely because its mortgage related assets were so deeply impaired that they had effectively rendered the Company insolvent.

COUNT I
(Violation of §12(a)(2) of the Securities Act of 1933)

(By the Class Against all Defendants)

214. Plaintiffs repeat and reallege the allegations set forth above as if set forth fully herein. For purposes of this Count, plaintiffs expressly exclude and disclaim any allegation that could be construed as alleging fraud or intentional or reckless misconduct, as this Count is based solely on claims of strict liability and/or negligence under the Securities Act of 1933.

215. The Offering Documents contained untrue statements of material fact, and concealed and failed to disclose material facts, as detailed above. Defendants owed plaintiffs and the other Class members the duty to make a reasonable and diligent investigation of the statements contained in the Offering Documents to ensure that such statements were true and that there was no omission to state a material fact required to be stated in order to make the statements contained therein not misleading. These defendants, in the exercise of reasonable care, should have known of the misstatements and omissions contained in the Offering Documents as set forth above.

216. Plaintiffs did not know, nor in the exercise of reasonable diligence could have known, of the untruths and omissions contained in the Offering Documents at the time plaintiffs acquired the Securities.

217. By reason of the conduct alleged herein, defendants violated §12(a)(2) of the Securities Act of 1933. As a direct and proximate result of such violations, plaintiffs and the other members of the Class sustained substantial damages in connection with their purchases of the Securities. Accordingly, plaintiffs and the other members of the Class who hold such Securities have the right to rescind and recover the consideration paid for their Securities, and hereby tender their Securities to the defendants sued herein. Federal class members who have sold their Securities seek damages to the extent permitted by law.

COUNT II
(Violation of Section 10(b) of The Exchange Act and Rule 10b-5 Promulgated Thereunder)

(By the Class Against Citigroup Inc.)

218. Plaintiffs repeat and reallege the allegations in paragraphs 1 through 217 as if fully set forth herein.

219. During the Federal Class Period, defendants carried out a plan, scheme and course of conduct which was intended to, and throughout the Federal Class Period, did: (1) deceive the investing public, including plaintiffs and other Class members, as alleged herein; and (2) caused plaintiffs and other Class members to purchase the Securities at artificially inflated and distorted prices. In furtherance of this unlawful scheme, plan and course of conduct, defendants, individually and as a group, took the actions set forth herein.

220. Defendants, individually and in concert, directly and indirectly, by the use, means or instrumentalities of interstate commerce and/or of the mails, engaged and participated in a continuous course of conduct to conceal adverse material information about the business, operations and future prospects of the Company as specified herein.

221. These defendants employed devices, schemes and artifices to defraud, while in possession of material adverse non-public information and engaged in acts, practices, and a course of conduct as alleged herein in an effort to assure investors of Citigroup's value and performance and continued substantial growth, which included the making of, or the participation in the making of, untrue statements of material facts and omitting to state material facts necessary in order to make the statements made about Citigroup and its business operations and future prospects in light of the circumstances under which they were made, not misleading, as set forth more particularly herein, and engaged in transactions, practices and a course of business that operated as a fraud and deceit upon the purchasers of the Securities during the Federal Class Period.

222. Defendants had actual knowledge of the misrepresentations and omissions of material facts set forth herein, or acted with reckless disregard for the truth in that they failed to ascertain and to disclose such facts, even though such facts were available to them. Such defendants' material misrepresentations and/or omissions were done knowingly or recklessly and for the purpose and effect of concealing the Company's financial condition and future business prospects from the FA CAP participants and supporting the artificially inflated or distorted price of its securities. As demonstrated by defendants' overstatements and misstatements of the Company's financial condition and business prospects throughout the Federal Class Period, defendants, if they did not have actual knowledge of the misrepresentations and omissions alleged, were reckless in failing to obtain such knowledge by deliberately refraining from taking those steps necessary to discover whether those statements were false or misleading.

223. As a result of the dissemination of the materially false and misleading information and failure to disclose material facts, as set forth above, the market price for Citigroup's securities was artificially inflated during the Federal Class Period. In ignorance of the fact that market prices of Citigroup's publicly-traded securities were artificially inflated or distorted, and relying directly or indirectly on the false and misleading statements made by defendants, or upon the integrity of the market in which the Company's securities trade, and/or on the absence of material adverse information that was known to or recklessly disregarded by defendants but not disclosed in public statements by defendants during the Federal Class Period, plaintiffs and the other members of the Class acquired the Securities during the Federal Class Period at artificially high prices and were damaged thereby.

224. At the time of said misrepresentations and omissions, plaintiffs and other members of the Class were ignorant of their falsity, and believed them to be true. Had plaintiff and the other members of the Class and the marketplace known the truth regarding Citigroup's

precarious financial condition, which was not disclosed by defendants, plaintiffs and other members of the Class would not have purchased or otherwise acquired the Securities, or, if they had acquired such Securities during the Federal Class Period, they would not have done so at the artificially inflated prices or distorted prices at which they did.

I. CDOs: THE MARKET, THE INSTRUMENTS AND CITIGROUP'S ACTIVITIES IN IT

225. Basic, operative facts with respect to Citigroup's CDO operations are provided below, together with a brief primer that provides better understanding of such instruments. These basic facts were not and could not be gleaned from Citigroup's class period statements and disclosures, for the simple reason that they nowhere appeared in Citigroup's statements or disclosures. That fact gives rise to this action.

226. With respect to the CDOs that Citigroup created and underwrote, the essence is that Citigroup was, secretly, by far their largest purchaser. Citigroup had amassed, undisclosed, huge swathes of these decreasingly valuable and increasingly risky assets, and Citigroup concealed – affirmatively schemed – to keep this information away from the public. The CDOs' decreasing value and increasing risk had long been known. The only matter *not* known was that Citigroup was holding any such instruments, *let alone $57 billion of them*. The omissions, concealments and schemes by which Defendants suppressed such material exposure are alleged in detail below.

227. By November 2007, when Citigroup first disclosed $46 billion of such holdings *simultaneously* with their estimated writedown of $8 to $11 billion (both numbers soon substantially increased – the holdings by $11 billion and the writedowns to $18 billion), the shock was not that the value of these instruments had declined materially, but rather and only that Citigroup held approximately $57 billion of such instruments – holdings whose existence had never before disclosed and whose value had disintegrated long before.

A. **What CDOs Are**

228. CDOs are a class of Asset-Backed Securities ("ABS"), also referred to as "structured finance" and "structured credit" securities for reasons that will be made clear in this brief introduction. The assets backing (or "collateralizing") the CDOs at issue here were, primarily, *another* class of ABS: primarily, nonprime Residential Mortgage-Backed Securities ("RMBS"). The assets backing nonprime RMBS were pooled collections of nonprime mortgages. How this all worked is explained below.

229. ABS creation consists of three steps. First, the ABS underwriter assembles the assets that will back the securities. In an RMBS securitization, for example, the underwriter assembled a pool of nonprime mortgages – typically, 3,000-4,000 mortgages having an aggregate value of approximately $1 billion, which generated a stream of monthly payments of principal and interest. Second, the underwriter transfers these assets to a special purpose entity, whose sole purpose is to receive these assets and issue securities backed by them. Third, the underwriter *structures* the securitization (hence, "structured finance") by creating a set of *tranched* securities representing differently-prioritized claims to cashflows generated by the pooled assets. This last step is the crucial one, and though it sounds abstruse it is capable of straightforward explanation.

230. ABS (such as RMBS and CDOs) can be thought of as mutual funds. Just as a mutual fund invests in a basket of securities, ABS (such as RMBS and CDOs) invest in a basket of assets. Just as a mutual fund issues shares representing an interest in the fund's pooled assets, ABS (such as RMBS and CDOs) issue securities representing an interest in the RMBS' or CDOs' pooled assets.

231. The key difference between mutual funds and ABS securitizations is that whereas mutual fund shares represent *equal* interests in the pooled assets, ABS securities are issued in

tranched sets representing *unequal* interests in the pooled assets. The more senior tranches of an RMBS securitization have first claim on the principal and interest generated by the entire underlying asset pool (i.e., the pool of mortgages), and only after the senior tranche securities are paid in full are the more subordinate tranche securities paid. How is this accomplished – and why is it done?

232. The RMBS securitization structure functions as a sort of prism that redirects the cash flows generated by the underlying asset pool (i.e., the mortgages) sequentially to the set of tranched securities backed by those assets. The useful (and actually used) metaphor is a "cash flow waterfall": the cash flow generated by the *entire* asset pool (i.e., the monthly mortgage payments) first is directed to the senior tranche until senior tranche payments are satisfied in full (think of a bucket being filled), and then proceeds to flow to each more subordinate tranche in turn (filling each tranche bucket and then moving on to the next). Initially, the securitization is structured so that the underlying assets generate a sufficient cash flow waterfall to fill all tranche buckets, from most senior to most subordinate. However, if the underlying assets (i.e., mortgages) become delinquent and/or default and thus stop making monthly payments, the cash flow waterfall is thus diminished.

233. The result is that the shortfall will first be felt by the most junior tranche: sufficient cash flow still exists to repay the more senior tranches in full, but by the time the diminished cash flow waterfall reaches the more junior tranches, it has run dry. As more and more assets (i.e., mortgages) become delinquent and/or default and thus stop making payments, the cash flow waterfall further diminishes, shortfalls climb higher into the securitization tranche structure, and progressively more senior tranches experience payment shortfalls.

234. Conversely: as the underlying assets' cash flow cascades in a waterfall from top to bottom, from most senior tranche to most junior, principal losses suffered by the underlying

assets flow from bottom to top, from most junior tranche to most senior. The useful metaphor here is that of a flood. As the underlying assets default and suffer losses (i.e., as the mortgages default, go through the foreclosure process, and fail to recoup the full sum initially lent), those losses first accrue to the most junior tranches, whose principal value is written down. As underlying asset defaults and losses accumulate, the "flood" of losses seeps upward.

235. Envision an RMBS securitization as a multi-story building, with each tranche representing a separate floor. As underlying mortgage losses accumulate, the flood of losses rises through the first story (the most junior tranche). When the flood reaches the first story's ceiling, the entire junior tranche is "under water", and its principal value is written down to zero. The flood then continues to rise, story by story and tranche by tranche, causing principal writedowns and losses for each more senior tranche in turn.

236. In this manner, RMBS junior tranches "protect" the RMBS senior tranches by insulating them from initial deterioration in the underlying mortgage pool. Each more senior tranche is progressively nearer to full payment of interest and progressively further from loss of principal. And, indeed, this is the "why" of it all: by structuring the securitization into such different tranches, the senior tranches, farthest removed from loss, are thus less risky and can bear the highest credit ratings, with progressively more junior tranches, progressively nearer to loss, bearing lower credit ratings.

237. The tranching structure of RMBS (and CDO) securitizations is developed by the underwriter (such as Citigroup) precisely to garner targeted credit ratings for each tranche. Each credit rating (e.g., triple-A, double-A, single-A, triple-B, double-B, etc.) represents a standard degree of remove from expected loss (within each of these broader categories are three finer categories: e.g., AA+, AA, and AA-). Thus, in order to create a tranche bearing a triple-A credit rating, the RMBS underwriter has to: (1) calculate the "expected loss" of the underlying assets

backing the securitization (i.e., the pool of mortgages); and (2) structure the securitization to provide a set of more junior tranches that sufficiently distance the intended triple-A tranche from that "expected loss". The same process is repeated at each progressively lower credit rating. An example illustrates:

238. The pool of mortgages serving as the assets for an RMBS securitization is $1 billion. The underwriter, based on its assessment and modeling of detailed data on each and every mortgage in that pool, determines that the "expected loss" is $50 million. The standard for triple-A ratings requires securities be able to withstand losses four times greater than expected (hence, $200 million). Thus, on the basis of the $1 billion of nonprime mortgages underlying the securitization, a large triple-A rated tranche amounting to $800 million can be created – because it will have $200 million of more subordinate tranches below it to protect it from losses four times greater than expected. This process is repeated at each rating level down the line to create further, more subordinate tranches. A last illustration: (1) the standard for double-A ratings requires securities to be able to withstand losses three times greater than expected (hence, $150 million); (2) therefore, in addition to the $800 million triple-A tranche, a $50 million double-A tranche can be created, because it will still have $150 million of more subordinate tranches to provide it with the requisite protection.

239. The safer tranches with higher credit ratings were structured to provide low yields (because of their low risk), while more junior tranches offered higher yields (to compensate for their increased risk). The high yields offered by junior tranches of nonprime RMBS securitizations made them attractive assets for CDOs, which as detailed below began to invest heavily in them.

240. The real world results of this structuring process, for 2006 subprime RMBS securitizations and for 2006 Alt-A RMBS securitizations, are displayed graphically on the pages

that follow. The charts show, in scale, the average tranching structure for subprime and Alt-A mortgage securitizations during 2006. The charts demonstrate rather vividly two very consequential matters: (1) the relative lack of protection, especially for the BBB tranches, from loss; and (2) the dramatic "thin-ness" of the more junior tranches, especially at the BBB and single-A levels. These were consequential because it was exactly these tranches that constituted the lion's share of the assets collateralizing Citigroup's CDOs. As the charts demonstrate and as explained next, underlying asset losses (i.e., nonprime mortgage losses) did not have to rise very much at all in order to render these RMBS tranches worthless. Thus, relatively small loss increases at the underlying asset level would cause losses to climb into rated RMBS tranches *but leap throughout CDOs*, because CDOs were primarily collateralized by these lower, thinner RMBS tranches.

(a) **Relative Lack of Protection from Underlying Asset Losses**. On average, subprime RMBS securitizations provided the BBB tranches with subordinate tranches totaling only 4.5% of the entire securitization. Should underlying asset losses exceed that 4.5% of "first loss" protection, the BBB tranches would start suffering principal losses – first the BBB-, then the BBB, then the BBB+. And as these tranches were themselves quite thin (as next detailed), they did not provide all that much protection for the more senior tranches above them, especially the single-A rated tranches next in line for losses. Because Alt-A mortgages were purportedly safer than subprime, expected losses from Alt-A mortgages were lesser, and thus less subordination was required in Alt-A securitizations. Alt-A BBB tranches were therefore even closer to the bottom, protected by a "first loss" tranche totaling only 1.8% of the entire securitization. Should underlying asset losses exceed that 1.8% of "first loss" protection, the BBB tranches would start suffering principal losses. Again, as these tranches were themselves quite thin (the three BBB tranches totaled only a further 1.2% of the securitization), they did not provide all that much

protection for the more senior tranches above them. In Alt-A securitizations, the single-A rated tranches were protected against only 3% of underlying asset losses (i.e., the 1.8% first loss tranche and the 1.2% of more subordinate BBB tranches); the double-A tranches against loss level of only 4.7%, etc..

(b) **Tranche Thin-ness**. As the charts illustrate, nonprime BBB tranches and single-A tranches represent a very thin, very specific slice of subprime risk: they begin to be liable for aggregate losses suffered by the underlying pool of subprime mortgages when such losses exceed approximately "X"%, and they are rendered worthless if such losses rise to X+1%. The very thinness of these tranches gives them an evident *ab initio* risk/return profile. A thin tranche speedily loses its value: a small deterioration in overall asset performance suffices to swing a thin tranche from 100% return of principal to 100% loss. Experts refer to this risk profile as "cliff risk": everything is fine for a while, but then value "falls off a cliff". Such thin tranches are, effectively, an "all or nothing" proposition. There is very little chance that they will suffer a partial loss: they will provide a 100% principal return (having been protected by tranches below it) or a 100% principal loss (having been engulfed by poor asset performance). Thus, the risk of these tranches has been termed "digital": 1 or 0.

241. The basic picture is clear. A triple-B subprime or Alt-A RMBS tranche is – as was clear from the outset – a very precise, very thin, and very close-to-the-bottom slice of nonprime risk. Mortgage performance deterioration that may seem relatively slight when considered in light of the entire mortgage pool (e.g., losses increasing by only 1% or 2%) are sufficient to substantially impair the value of these instruments – or entirely destroy them.

242. CDOs are in essence little different from the RMBS securitizations described above. Any assets can serve to collateralize CDOs[52]: the CDOs at issue here are specifically ABS CDOs – and as detailed herein, ABS CDOs came during the class period to be collateralized

primarily by the junior tranches of subprime RMBS and Alt-A RMBS. For that reason, they will hereinafter be referred to as subprime CDOs.

243. Just like RMBS, CDOs: (1) invested in a set of assets, and (2) issued a further round of tranched securities backed by those assets. The principles are the same: based on the expected loss of the CDO's collected assets (the collateral for the CDO securities), the CDO securitization would be structured with "X" amounts of triple-A rated securities, "Y" amount of double - A, etc. The cash flow waterfall generated by the CDO's underlying assets marches down the CDO tranches from top to bottom, while principal losses suffered by the underlying assets climb up the CDO tranches from bottom to top.

244. CDOs had one structural difference. The large triple-A tranche at the top of capital structure was, in CDOs, split into two separate tranches: a "junior" triple-A tranche and a "super senior" triple-A tranche.

245. Why? The new super senior tranche allowed CDO arrangers / underwriters to "reshuffle" the cash flows of the entire CDO securitization, so as to make the junior tranches more marketable. Yield that otherwise would have gone to the large super senior portion of the triple A tranche could be "stolen" and rerouted to "juice" all the more junior tranches, making them more attractive. CDO underwriters such as Citigroup sought to enhance the attractiveness of CDOs' junior and equity tranches by: (1) breaking up the large triple-A tranche into a small "junior" triple-A tranche and large "super senior" triple-A tranche, so that the new "super senior" received additional credit protection by the new "junior" triple-A tranche; (2) providing the new, large super senior tranche with very low yields (because it was marginally safer than a normal triple-A tranche); and (3) redirecting the resulting yield savings to the junior and equity tranches. By this device, the yield provided to the junior tranches could be "juiced", and the arbitrage returns to the equity tranche multiplied.

246. Because the new super senior tranche was thus even farther removed from loss than the normal triple-A tranche (by virtue of being protected by the new junior triple-A tranche), they ostensibly carried less risk than a normal triple-A tranche and thus could be assigned a lower yield than a normal triple-A tranche. For example, a normal CDO triple-A tranche (i.e., the junior triple-A) could be assigned a yield of LIBOR + 0.50%, but the super senior tranche could be assigned a substantially lower yield, such as LIBOR + 0.25%. Because the super senior tranche was such a large part of the entire securitization – approximately 64% of Citigroup's Mezzanine CDO structures and 77% of Citigroup's High Grade CDO structures – the yield savings on the super senior tranche were magnified.

247. The yield "saved" in this manner was then ferried to two places: (1) to boost the yield that could be assigned to the smaller, junior tranches; and (2) to boost the arbitrage returns available to equity tranche investors. Because both the super senior tranche was so large and the junior and equity tranches so small, the saved yield on the super senior tranche (a few basis points on a large amount of principal) was substantially magnified when applied to the junior and equity tranches (many basis points on a small amount of principal). The added yield/arbitrage returns made the junior tranches and equity tranches substantially more enticing to investors.

248. The CDOs at issue here (ABS CDOs, backed primarily by subprime RMBS) were of two primary types, Mezzanine CDOs and High Grade CDOs, and a third, more rare type, CDO-Squared. A brief introduction of each follows, together with a final note on super seniors to end this introduction.

249. **Mezzanine ABS CDOs** invested in "mezzanine"-level assets – meaning, primarily, the thin, close-to-loss BBB-rated tranches discussed above (referred to as "mezzanine" because such tranches are neither the most senior nor the most junior). Mezzanine CDOs were little more than a vast expansion of this very thin, very precise, very close-to-the-bottom slice of

subprime mortgage risk. In essence, they were a subprime RMBS BBB tranche writ large. These CDOs' extreme asset concentration in nonprime RMBS BBB tranches meant, *ab initio*, that a relatively small rise in underlying mortgage pool losses – sufficient to wipe out the thin, close-to-the-bottom BBB- and BBB tranches – would simultaneously destroy most of the collateral value of a Mezzanine CDO. All the CDO's junior tranches, including the junior triple-A tranche, would be rendered worthless, and even the top-most tranche, the super senior, materially impaired.

250. **High Grade ABS CDOs** invested in slightly higher-rated assets than did Mezzanine CDOs: the average credit rating of the assets held by High Grade CDOs was between single-A and double-AA. Typically, High Grade CDO assets included a mix of single-A and double-A RMBS tranches, as well as some more highly-rated and some more low-rated tranches. Additionally and very importantly, High Grade CDOs often included in their asset base some single-A, double-AA and triple-A rated tranches from *other* CDOs. As detailed herein, *Citigroup's* High Grade CDOs were unique in the degree to which they were collateralized by tranches of *other* CDOs. Citigroup's own statistics showed that on average, 19% of High Grade CDO assets were other CDO tranches. Citigroup's High Grade CDOs, however, contained a concentration of other CDO tranches nearly twice as high – 35%. The high concentration of such assets in Citigroup's CDOs resulted from the fact that Citigroup, as detailed in this complaint, began to find it difficult in late 2006 to sell the junior CDO tranches it was underwriting, even with their "juiced" yield. Citigroup's solution to this problem? To create buyers for such unwanted securities, in the form of new Citigroup-sponsored CDOs collateralized by the unsold remnants of the old.

251. In so doing, *inter alia*, Citigroup literally degraded its "High Grade" CDOs, which came increasingly to be filled with the junior tranches from Mezzanine CDOs that

Citigroup had previously underwritten but had been otherwise unable to sell. Citigroup thus exposed its High Grade CDOs to exactly the thin, close-to-the-bottom BBB tranches that collateralized its Mezzanine CDOs. This helps explain the fact that Citigroup's High Grade CDOs were impaired nearly to the same degree as its Mezzanine CDOs.

252. **CDO Squared** are CDOs that are collateralized primarily by tranches of *other* CDOs. Several Citigroup CDOs labeled as "High Grade" were very close to being CDO-squared, and several of the Citigroup CDOs discussed herein as the "Hedged CDOs" were CDO-squared. As detailed herein, Citigroup's Hedged CDOs marked Citgroup's recognition in early 2007 that the junior CDO tranches piling up unsold (and undisclosed) on Citigroup's books were effectively worthless. The explanation of Mezzanine and High Grade CDOs already provided begins to make clear why Citigroup thought that, and why Citigroup was correct. So, as detailed herein, Citigroup gathered in excess of $5 billion of them, resecuritized them into four new CDOs, and then attempted – in a clear break from prior practice – to obtain a form of insurance for the large, resulting super senior tranches. In short, by February 2007 at the latest, Citigroup understood that its CDOs, even at the super senior tranche levels, were in substantial and imminent danger of impairment.

253. **Citigroup's Undisclosed Super Senior CDO Tranche Hoard.** As detailed in the following sections of this Complaint, Citigroup, throughout the class period and unbeknownst to plaintiffs, the class and the market, had been unable to sell the super senior tranches of the subprime CDOs it underwrote. They sat, invisible and undisclosed, on and off Citgroup's books, accumulating to the staggering sum of approximately $55 billion.

254. Though these tranches were "super seniors" at the top of CDOs, the CDOs were collateralized primarily by the thin, close-to-the-bottom, already-tranched, much-lower rated slices of risk of subprime RMBS mortgage pools. This was not a secret, above all to Citigroup.

Citigroup itself had assembled these assets and created these CDOs. Nor was it a secret to the market, which, as demonstrated herein, reached consensus no later than March 2007 that CDOs were in for a bloodbath. The only secret was that of Citigroup's massive, massive exposure.

255. Prior to November 4, 2007, Citigroup never disclosed that it was holding any super senior CDO tranches, let alone $55 billion of them. Citigroup revealed their existence for the first time only in November 2007 (though it then understated its super senior holdings, which it put at $43 billion) *simultaneously* with the fact of their writedown by an expected $8-$11 billion. Citigroup had valued these super seniors at par throughout, despite the fact that their value had become materially impaired by February 2007 and had only plummeted thereafter. Two months later, in January 2008, Citigroup raised both its CDO exposures and its writedowns by $10 billion each. CDO writedowns continued totaling $12.9 billion in Q1 and Q2 2008, and a further $6.0 billion thereafter in Q3 2008 and Q4 2008.

B. <u>Citigroup's CDOs</u>

256. Citigroup held itself out as a leading underwriter of CDOs (i.e., a seller of CDO securities). In fact and undisclosed, it was the world's largest repository for the CDO instruments it underwrote. Throughout the class period, Citigroup's financial statements concealed what Citigroup was doing, what Citigroup was holding, and what risks Citigroup was exposed to with respect to CDOs. What Citigroup told the public revealed neither the size nor nature of Citigroup's interests in, nor exposure to CDOs, nor indeed that Citigroup had any exposure. Nor did the disclosures indicate that an enormous portion of the CDOs – those at issue here – were backed largely by subprime. On the contrary, the disclosures distinguished between CDOs and "mortgage-related investments".

257. Citigroup's class period disclosures failed to provide any "meaningful... data for an independent assessment of the potential risks of the Company's involvement in various

[CDOs] and asset classes". The quotation is taken from Citigroup's *mea culpa* contained in its 2007 Form 10-K, explaining the expanded disclosure therein of the very information Citigroup had previously failed to provide.

1. **Citigroup's CDO Exposures: Overview and Categorization**

258. Following Citigroup's practice, the subprime CDO holdings revealed by Citigroup on and after November 4, 2007 fall into several basic categories. Plaintiffs discuss each of these categories/exposures in separate sections below.

259. **Commercial Paper CDOs**. Citigroup arranged and underwrote, principally in 2004-2005, approximately $28 billion of CDOs in which the super senior tranches (totaling $25 billion) were issued not as long-term debt but as short-term commercial paper. Citigroup "sold" $25 billion of such commercial paper super senior tranches with a guarantee to repurchase them all, at full price, if collateral concerns (i.e., subprime worries) ever disrupted the rollover of that commercial paper. Citigroup earned approximately $375 million on account of what it underwrote. For providing this money-back guarantee, Citigroup was paid approximately $50 million per year. During much of the class period, Citigroup concealed the fact and consequently the risks associated with its guarantee. The end result: $25 billion of super senior subprime exposure vanished from Citigroup's books for years, replaced by $50 million annual boost to revenues.

260. **Mezzanine CDOs**. Mezzanine CDOs are so named because their asset base is composed primarily of "mezzanine"-level assets that bear the lowest investment-grade credit rating (triple-B). Citigroup arranged and underwrote, principally in 2005-2006, approximately $19.64 billion of Mezzanine CDOs containing $12.76 billion of super senior tranches. Citigroup never sold a single Mezzanine CDO super senior tranche during the class period. Instead, it silently and without disclosure retained every single one. As presentations from Citigroup's own

credit strategists provided further along demonstrate, the risks of Mezzanine CDOs are clear, and stunning.

261. A small deterioration in subprime mortgage performance would suffice to make Mezzanine CDO securities, at all junior tranche levels, a 100% loss, and produce losses substantially exceeding 50% for super senior tranche investors. This deterioration was evident beginning in late 2006, and by early 2007 many market participants, including Citigroup's own credit experts, foresaw a Mezzanine CDO bloodbath. By March 2007, there was no longer any question as to the risk. Instead, the only questions were "Where did the risk go? Who was holding these Mezzanine CDO tranches?" Here, by far the largest holder of these Citigroup-underwritten instruments was Citigroup itself, a fact undisclosed until November 2007.

262. **High Grade CDOs**. High Grade CDOs are so named because, in contrast to Mezzanine CDOs, their asset base is meant to be primarily composed of assets rated double-A and single-A (rather than the mezzanine triple-B). Citigroup arranged and underwrote, almost entirely between late 2006 and mid-2007, approximately $14 billion of High Grade CDOs containing $10.8 billion of super senior tranches. Citigroup never sold a single High Grade CDO super senior tranche during the class period; instead, it silently and without disclosure retained every single one.

263. High Grade CDOs, because of their more highly-rated asset base, would be expected to perform better than Mezzanine CDOs. Citigroup's High Grade CDOs, however, did not: as Citigroup's own writedowns best evidence. Why?

264. Citigroup used its High Grade CDOs as receptacles for the junior tranches of Citigroup's prior Mezzanine CDO securitizations that Citigroup was otherwise unable to sell. Because of the risks of the mezzanine asset base, each Mezzanine CDO securitization produced a relatively large amount of junior tranches (on average, 36% of the entire CDO securitization). In

late 2006 and early 2007, as subprime concerns mounted and as subprime performance became clear, Citigroup began to experience difficulties in selling these Mezzanine CDO junior tranches, even after those tranches were "juiced" by added yield imported from the super senior. Now, in addition to the super senior tranches, the junior tranches too began to pile up, undisclosed, on (and off) Citigroup's books.

265. How did Citigroup cover up this problem? It created new "High Grade" CDOs, into which ever larger amounts of unsold tranches from Citigroup's previously-underwritten CDOs were transferred. By the end of 2006, Citigroup's warehouse of subprime assets designated for securitization stood at approximately $30 billion, a sizeable portion of which being unsold junior CDO tranches. Citigroup's High Grade CDOs from this period are objectively distinguished by the extent to which their asset base was itself composed of previously-underwritten CDOs. Statistics published by Citigroup itself indicate that 19% of High Grade CDOs' asset base, on industry-wide average, was made up of other CDO tranches. The facts demonstrate that Citigroup's CDOs from this period, on average, contained nearly twice that amount. These large amounts of CDO assets explain the poor performance of Citigroup's High Grade CDOs. Citigroup was systematically degrading its "High Grade" CDOs.

266. **Hedged CDOs**. The Hedged CDOs were a subset of Citigroup CDOs, underwritten primarily during the first half of 2007, in which – in contrast to prior practice – Citigroup arranged to free itself of the credit risks posed by the retained super senior tranches by "swapping" those risks off to monoline[6] insurers, and particularly to AMBAC. Citigroup's *newfound* initiative to divest itself of super senior risks is, among other things, strongly indicative of scienter.

267. As the foregoing summary of Citigroup's Mezzanine and High Grade CDOs indicates, by late 2006 and early 2007, Citigroup's CDO operations had become a Ponzi scheme.

The unmarketable junior tranches from prior CDO securitizations were transferred to freshly-baked CDOs; the new CDO securitizations produced yet another round of unmarketable junior securities, which Citigroup sold to yet newer CDOs, etc. As for the super seniors, nothing could be done: their low yields made their inclusion in new CDOs impossible. So Citigroup kept them, and kept quiet about them.

268. The Hedged CDOs were Citigroup's attempt to resolve the inherent contradictions in this process. During the first half of 2007, Citigroup created – in addition to the Mezzanine and High Grade CDOs already discussed – $8 billion of new CDO securitizations. A distinguishing feature of these securitizations was their even higher asset concentrations of previously-underwritten CDO tranches, accounting for $5 billion of these CDOs' assets in the aggregate. Three of these Hedged CDOs were collateralized in their *entirety* by tranches of other CDOs. In short, these Hedged CDOs were a sleight-of-hand shuffle of Citigroup's previously-unsold junior CDO tranches, from one warehouse to another.

269. With respect to each of the Hedged CDOs, Citigroup unburdened itself of the super senior tranche's risks of loss by swapping its risk off to monoline financial insurers, particularly AMBAC. In these transactions, Citigroup was conceding (1) that the underlying assets (the junior CDO tranches) were worthless, and (2) that the resulting new securities were also worthless. The key was that the largest portion of the resulting new securities – the super senior – would not burden Citigroup, but rather the monolines. By these Hedged CDO transactions Citigroup sought to cut impending losses (from100%) by unburdening itself, at the least, of the resulting large super senior tranches (representing 50%-70% of the securitizations).

2. <u>Timeline: Citigroup's CDO Operations and Scheme</u>

270. During 2004 and 2005, Citigroup's underwriting was dominated by the Commercial Paper CDOs, marketed with Citigroup's undisclosed money-back guarantees.

During the same period, Mezzanine CDO issuance was minor, High Grade issuance nonexistent, and hedging nonexistent as well.

271. During 2006, Mezzanine CDO issuance was dominant – resulting in substantial amounts of junior tranche issuance – with Commercial Paper CDOs fading (only one transaction, in March 2006) and High Grade CDOs rising. High Grade CDO issuance occurred almost *entirely* during the last quarter of 2006, between October 2006 and December 2006. The leap in late-2006 High Grade CDO issuance – after two years of dormancy – was (a) Citigroup's attempt to solve the problem of accumulating, unsold, junior Mezzanine CDO tranches by (b) creating new, "High Grade" CDOs collateralized to a uniquely high degree by those unwanted assets.

272. During 2007, Citigroup's CDO issuance was dominated by High Grade CDO issuance, and by the Hedged CDOs. These represent: (a) Citigroup's attempt to empty its warehouse of the riskier assets (by piling them into new High Grade CDOs); (b) to procure hedges for its super senior exposures (now well understood by Citigroup to be at risk); and (c) in "endgame" to protect itself, to the greatest degree possible, from the coming failure of these assets (by hedging the large super senior and accepting the junior tranches as unavoidable loss).

3. <u>Citigroup's Commercial Paper CDOs</u>

273. Citigroup first disclosed on November 4, 2007 that it was holding $43 billion of subprime CDO super senior tranches, and $2.7 billion of subprime CDO junior tranches. Citigroup disclosed a further $10.5 billion of super senior holdings in January 2008. $25 billion of the $43 billion of super seniors first revealed in November 2007 were the "Commercial Paper CDOs" discussed below.

274. Between late 2003 and early 2006, Citigroup catapulted itself from a bit-player in CDO underwriting (7th place in 2003) to the second-largest underwriter of CDOs by 2005. It did so by arranging/underwriting approximately $28 billion of subprime-backed CDOs that

contained two distinguishing features: (a) a super senior tranche issued in the form of short-term commercial paper rather than traditional long-term debt; and (b) an irresistible feature for those commercial-paper-funded super seniors: a full-price money-back guarantee from Citigroup in the event that the backing collateral deteriorated. As alleged below, the guarantee provided by Citigroup was, in effect: "We promise to buy these back from you at full price if the price declines".

275. Citigroup's rise to prominence in CDO underwriting was itself underwritten by this money-back guarantee. Between 2003 and 2005, Citigroup arranged/underwrote in excess of $20 billion of such guaranteed CDOs. During the same period, Citigroup arranged/underwrote only $4.2 billion of CDOs without such guarantees.

276. Until November 4, 2007, Citigroup never disclosed anything to indicate that it had guaranteed to repurchase, at full price, $25 billion of subprime CDO super senior CDO tranches.

277. It is evident that the majority of these guaranteed super seniors were issued (with their guarantees) long ago: $13.3 billion in 2003 and 2004, $7.1 billion in 2005, and $2.1 billion in early 2006. They had been on – or rather, off – Citigroup's books in substantial amounts since 2004.

278. Super seniors were by far the largest part of the entire securitization, accounting on average for 88% of the capital structure. The residual "junior" triple-A tranche is quite small by comparison, accounting for only 7% of the securitizations.

279. As previously alleged, creating such large super seniors allowed Citigroup to reduce CDO funding costs and improve CDO "arbitrage". The "natural" yield diverted from the large super senior was diverted to the smaller subordinate tranches, substantially magnifying their yields/returns and thus enhancing their marketability. The yield rerouting was particularly

oriented to the lowest, riskiest equity tranches, which arrangers/underwriters such as Citigroup were often forced to retain as one of the costs of the business.

280. But, super seniors' low yields rendered them effectively unsellable.

281. The sole exception to this rule were the Commercial Paper CDOs, which Citigroup was able to "sell" only by promising to repurchase them, at full price, were the backing collateral to deteriorate. For providing this guarantee, Citigroup received fees amounting to $50 million per year. This scheme – alleged in detail in the "Schemes" section of this complaint – created the false and misleading appearance that a sale had been made and that a risk had been transferred. Its intended result: $25 billion of subprime CDOs vanished from Citigroup's financial statements, replaced by $50 million in annual revenues. But, precisely because of Citigroup's undisclosed, full price money-back guarantee, the risk of these $25 billion of subprime CDO remained – undisclosed – with Citigroup. As subprime performance deteriorated in 2006 and 2007, Citigroup was forced to honor its undisclosed guarantees and repurchased (again, without disclosure) at full price $25 billion of Commercial Paper CDO super senior tranches just as such instruments were losing their full price. Citigroup first revealed its $25 billion exposure to these instruments, and first revealed the fact of its long-standing guarantees, on November 4, 2007.

282. For the sake of particularity, case studies of several CDOs provide further illumination.

283. Citigroup's Blue Bell Funding is a $1.25 billion CDO with a $1.125 billion super senior commercial paper tranche guaranteed by Citigroup. Citigroup's guarantee fee: 19 basis points (0.19%) per year for the $1.125 billion super senior tranche, or $2.14 million per year. Citigroup's underwriting fee (at 1.5%): approximately $19 million.

284. The super senior tranche amounted to 90% of the entire CDO, meaning that the first 10% of losses suffered by the underlying collateral pool (the asset base of the CDO) would be absorbed by the more junior tranches. Any losses above 10% accrue to the super senior. Blue Bell Funding's collateral base: 44% subprime RMBS (21% of the total from the worst-performing 2005-2007 vintages); 10% Alt-A RMBS (8% of the total from the worst-performing 2005-2007 vintages); 10% tranches of other CDOs collateralized by like amounts of RMBS. The triple-A tranche immediately below the super senior tranche whose risk Citigroup retained is currently rated triple-C – indicating that it will default, and thus that the super senior tranche is itself exposed to loss.

285. Citigroup's Millstone Funding is a $1 billion CDO with a $ 880 million super senior commercial paper tranche guaranteed by Citigroup. Citigroup's underwriting fee (at 1.5%): $15 million; Citigroup's guarantee fee (at 0.20%): $2 million per year. The super senior tranche amounted to 88% of the entire CDO, meaning that the first 12% of losses suffered by the underlying collateral pool (the asset base of the CDO) would be absorbed by the more junior tranches. Millstone Funding's collateral base: 17.3% subprime RMBS from the worst-performing 2005-2007 vintages; 21.1% Alt-A RMBS from the worst-performing 2005-2007 vintages; 23.3% tranches of other CDOs collateralized by like amounts of RMBS. The triple-A tranche immediately below the super senior tranche whose risk Citigroup retained is currently rated triple-C; and currently 25% of the CDO's collateral is rated as "below investment grade" (including 11% at CCC or lower ratings). Again, this indicates that substantial amounts of the underlying collateral will default, that all junior tranches of the CDO will do the same, and that the super senior tranche is exposed to substantial loss.

286. Citigroup's Grenadier Funding is a $1.5 billion CDO with a $ 1.32 billion super senior commercial paper tranche guaranteed by Citigroup. Citigroup's underwriting fee (at

1.5%): $22.5 million; Citigroup's guarantee fee (at 0.20%): $3 million per year. The super senior tranche amounted to 88% of the entire CDO, meaning that the first 12% of losses suffered by the underlying collateral pool (the asset base of the CDO) would be absorbed by the more junior tranches. Grenadier Funding's collateral base: 27.7% subprime RMBS from the worst-performing 2005-2007 vintages; 16.2% Alt-A RMBS from the worst-performing 2005-2007 vintages; 10.6% tranches of other CDOs collateralized by like amounts of RMBS. The triple-A tranche immediately below the super senior tranche whose risk Citigroup retained is currently rated triple-C; and currently 13% of the CDO's collateral is rated as "below investment grade", including 10% rated CCC or lower. The situation of Grenadier Funding's super senior tranche thus parallels those of Blue Bell's and Millstone's.

287. The above three CDOs – Blue Bell, Grenadier, and Millstone – are believed to be the CDOs in the *best* shape of all the Commercial Paper CDOs. That is because they are the oldest, and as such, the most likely to have accumulated portfolios that avoided the worst nonprime RMBS and CDO vintages of 2005, 2006 and 2007. Later-issued CDOs have larger exposure to these more perilous assets. It is precisely because of this fact (i.e., that the Commercial Paper CDOs are among the oldest of Citigroup's CDOs) that Citigroup's writedowns on its Commercial Paper CDOs – 36% – are substantially less than the 75%-100% writedowns that Citigroup recognized on its more recent CDOs.

4. Citigroup's Mezzanine CDOs

288. Of the $43 billion of subprime CDO super senior holdings Citigroup first disclosed on November 4, 2007, $8 billion were super senior tranches from Mezzanine CDOs. On January 15, 2008, Citigroup revised that figure upwards to $9 billion. Between January 2008 and April 2008, Citigroup took writedowns of $7.6 billion on these instruments – i.e., near-total loss severity of 84%. As explained below, severe losses had long been apparent for such

Mezzanine instruments. What was not apparent was that Citigroup was holding these instruments.

289. Citigroup underwrote Mezzanine subprime CDOs between 2004 and 2007 that contained $12.76 billion of super senior tranches (i.e., $3.8 billion more than Citigroup indicated).

290. Citigroup failed to sell a single Mezzanine CDO super senior tranche throughout the class period. Between 2004 and 2007, Citigroup arranged and underwrote approximately $19.6 billion of Mezzanine CDOs, containing $12.7 billion of super senior tranches. Citigroup admitted in November 2007 and January 2008 net exposure to such tranches of $9 billion. (The discrepancy is not due to any sales, but rather to the fact that Citigroup hedged some $3.7 billion of the super senior tranches listed above with FGIC, ACA, Radian and other counterparties.

291. By the close of 2004, Citigroup held $700 million of Mezzanine super seniors; by the close of 2005, $2.8 billion; by the end of 2006, $10 billion, and by early 2007 $12.76 billion.

292. Mezzanine CDOs contain large super senior tranches that, on average, account for 65% of each securitization. Thus, on average, the Mezzanine CDOs are protected by subordinate tranches – including a junior triple-AAA tranche constituting 15% of the securitization – from the first 35% of losses suffered by the CDOs' underlying collateral. This may seem substantial protection – until one examines the underlying collateral, which was totally inadequate.

293. The Mezzanine CDO securitizations produced a relatively large amount of more junior tranches (i.e., 35% of the Mezzanine CDO capital structure). By contrast, the Commercial Paper CDO securitizations featured a much larger super senior (88% of the capital structure) with more junior tranches thus totaling only 12% of the issue.

294. As plaintiffs later demonstrate, in late 2006 and early 2007 these relatively larger amounts of Mezzanine CDO junior tranches– even with the yield "stolen" from super senior –

became increasingly difficult to sell. They too began to pile up on Citigroup's internal books, alongside the super seniors. In late 2006 and early 2007, Citigroup began hiding these junior tranches in ever larger amounts into newly-arranged CDOs, which resulted in new rounds of unmarketable super seniors and juniors, which were put into yet new CDOs.

295. The essence of Mezzanine CDOs is neatly encapsulated in one simple diagram taken from a presentation made in February 2008 by Citigroup credit products strategist Michael Hampden-Turner. As the diagram shows, and as plaintiffs next explain, Mezzanine CDOs typically invested 75% of their funds into the "mezzanine", triple-B tranches of nonprime RMBS. This was no secret, but rather their explicit investment mandate.

296. These particular RMBS tranches, as plaintiffs detailed above: (a) lie near the bottom of the initial RMBS securitization, putting those tranches close to first in line for losses suffered by the underlying mortgages; and (b) are very "thin", meaning that even a small change in overall mortgage performance can move the triple-B tranche from 100% recovery to total loss. The effect, as Citigroup's diagram shows, was to leverage, *immensely*, Mezzanine CDOs' exposure to a very small, very specific slice of subprime risk.

297. Mezzanine CDOs held a concentrated position in a very specific asset: BBBrated subprime RMBS and BBB-rated Alt-A RMBS. Plaintiffs have already detailed the nature of these assets, emphasizing (1) their relative proximity to loss, and (2) their thinness. The risk presented by such instruments is "digital": either 1 or 0, either complete return of principal or total loss. Mortgage performance deterioration that may seem relatively slight when considered in light of the entire mortgage pool (e.g., actual or expected losses moving from 6% overall to 8%) is sufficient to substantially impair the value of these instruments – or entirely destroy it.

298. To the extent these subprime BBB-rated assets form the asset base for a Mezzanine CDO, they transfer exactly the same risks to it, but magnified massively for CDO

investors. If mortgage performance deteriorates enough to capsize the BBB tranche of the initial subprime RMBS securitization, investors in the single-A and double-A *RMBS* tranches still have some reason to expect some/all return of principal, and triple-A *RMBS* tranche investors are still far removed from loss. *But at the CDO level, capsizing of the initial RMBS triple-B tranches means wipeout even for the triple-A CDO tranches, and substantial losses at the super senior level.*

299. The basic picture is clear. Mezzanine CDOs were (a) a vast expansion of (b) a very thin, very junior, and very precise slice of subprime risk into (c) the substantial majority of the CDOs' entire asset base.

300. Mortgage performance deterioration that may seem relatively slight when considered in light of the entire mortgage pool (e.g., actual or expected losses moving from 6% overall to 8%) is sufficient to substantially impair the value of these instruments – or entirely destroy it.

301. The weighted average rating of the assets backing Mezzanine CDOs was towards the lower end of the BBB-range: between BBB and BBB-. On average, 84% of the collateral pool backing Mezzanine CDOs was rated triple-B or lower.

302. Most of those assets were subprime RMBS and Alt-A RMBS. In fact, on average, 70%-80% of the assets of more recently-underwritten Mezzanine CDOs were subprime and Alt-A RMBS.

303. When a new round of CDO securities is issued, it is collateralized by a mass of triple-B nonprime assets. The super senior tranche of Citigroup's Mezzanine CDOs accounted for 65% of the entire securitization and the junior triple-A tranche for the next 15%. Arrayed against that CDO capital structure is the CDO asset structure: 65%-75% triple-B nonprime

RMBS. This mass of triple-B assets dwarfs the size of all junior tranches and cuts deeply into the super senior.

304. By expanding (a) the original triple-B slice of risk of the initial subprime RMBS so that (b) that very risk forms 75% of the collateral base of a Mezzanine CDO, (c) the "likely loss" is 75%.

305. This looming loss: (a) overwhelms the all the more junior tranches (even at the "junior" triple-A level) of the Mezzanine CDO, which serve as the super senior tranche's credit protection; and (b) deeply impairs the super senior tranche.

306. The chain of loss causation starts with a deterioration in mortgage performance sufficiently severe to endanger the thin triple-B tranches of subprime RMBS. Because those tranches are so thin and so close to the bottom, that deterioration need not be terribly severe. After that, the rest is automatic: if the mortgages perform sufficiently badly to threaten to wipe out the triple-B tranches, it is a straight line to massive Mezzanine CDO losses, even at the super senior level.

307. Citigroup's Mezzanine CDOs were just as mezzanine CDOs were designed to be: heavily invested in the BBB/BBB- slice of subprime/nonprime risk. The results are essentially the same, no matter the case.

308. To allow but one illustration to stand for many: Citigroup's Tallships Funding CDO was backed by 71% subprime BBB tranches (all from 2005-2007), 1% Alt-A BBB tranches, 1% prime RMBS, and 22% CDO tranches (of which 20% were from CDOs issued between 2005-2007). Of particular note: Tallships Funding's holdings of other CDO tranches (22%) more than triple the average allocation (per Citigroup's own statistics) to such assets in Mezzanine CDOs generally (6%). As plaintiffs later detail in the "Schemes" section of this complaint Citigroup had stuffed into Tallships the tranches from prior Citigroup CDO

securitizations that Citigroup had otherwise been unable to sell. 75% of Tallships Funding's assets were downgraded to junk, and by July 2008, Citigroup's super senior tranche was rated triple-C. Tallships Funding is now, as of October 6, 2008, in liquidation.

309. Octans III is now being liquidated as well. Stack 2007-1 was liquidated in September 2008, as was Mugello. Octonion CDO had 80% of its assets downgraded by October *2007.* It is now in the "acceleration" phase where all payments from underlying collateral are forwarded only to the super senior tranche, together with Lacerta ABS CDO 2006-1, Cetus ABS CDO 2006-4, Ivy Lane, FAB US 2006-1. Other CDOs have experienced sufficiently poor performance to trigger "Events of Default" ("EOD"), which in turn allow the super senior tranche holder to decide whether to accelerate or liquidate the CDO. These CDOs include GSC ABS CDO 2006-1, Laguna Seca Funding I, and Camber 5.

310. As Credit Investment News reported on March 3, 2008, "roughly $16 billion of $23 billion of the transactions underwritten by the bank [Citigroup] to hit EOD have now accelerated payments to senior noteholders. Both amounts are more than any other underwriter".

5. <u>Citigroup's High Grade CDOs</u>

311. Of the $43 billion of subprime CDO super senior holdings first disclosed on November 4, 2007, $10 billion were super senior tranches from Citigroup-underwritten "High Grade" CDOs. Until November 4, 2007 Citigroup did not disclose and affirmatively concealed that it was holding $10 billion of super senior tranches from High Grade CDOs.

312. High Grade CDOs are similar to Mezzanine CDOs, but instead of investing in BBB-rated nonprime securities, High Grade CDOs invest largely on the borderline between single-A and double-A. Because the underlying assets of High Grade CDOs are thus further removed from loss than the BBB tranches owned by the Mezzanine CDOs – a removal aided by

the thicker tranche sizing of the single-A and double-A tranches – High Grade super senior tranches should have fared much better than the above-detailed Mezzanine CDOs.

313. A look at Citigroup's High Grade CDO writedowns reveals that Citigroup's High Grade CDOs did not. Impairment in their value has paralleled the Mezzanine CDO super seniors: High Grade CDO super seniors were written down by 72%; Mezzanine super seniors by 84%. Why?

314. Citigroup's High Grade CDO securitizations were collateralized to a uniquely high degree by *other* CDO tranches, particularly those from Citigroup's previously-underwritten Mezzanine CDOs. Citigroup was thus using also its High Grade CDO securitizations to clean out unsold inventory of risky, lower-rated CDO tranches from prior CDO securitizations – and in so doing, systematically degrading its "High Grade" CDOs. The details are presented in the "Schemes" section of this complaint.

315. Citigroup arranged/underwrote $14 billion of High Grade CDO securitizations between 2004 and 2007. These securitizations produced $10.8 billion of super senior tranches.

316. The total super senior production from the above CDOs matches exactly the High Grade super senior exposure that Citigroup disclosed on November 4, 2007. Citigroup was not able to sell a single super senior tranche from its High Grade CDO securitizations during the entire class period; Citigroup kept all of them.

317. Citigroup's High Grade CDO underwriting took place in effective entirety in a concentrated burst of activity between October 2006 and August 2007. The start date marks the beginning of Citigroup's attempt to unburden itself of unsold CDO tranche inventory: as real investors were turning away from these instruments, Citigroup created new CDOs to appear to take their place. The end date marks when this scheme collapsed. And the seeming boom in issuance masked a reality that was the opposite: investors were turning away from CDOs,

leaving Citigroup with the undesired detritus of its own prior CDO securitizations – which Citigroup attempted to offload and/or conceal by creating new CDOs in which to store them.

318. So long as Citigroup was able to conceal that its High Grade CDOs were packed with Citigroup's prior failed CDO securitizations, the market for Citigroup's CDOs – and Citigroup's share price – remained artificially high.

6. Citigroup's Hedged CDOs

319. Citigroup's super senior tranche holdings in the above-mentioned CDOs – the Commercial Paper CDOs, the Mezzanine CDOs, and the High Grade CDOs – were first disclosed on November 4, 2007. They totaled $43 billion. Citigroup also disclosed a further $2.7 billion of junior CDO tranche holdings.

320. But not until January 15, 2008 did Citigroup disclose that, in addition to that $43 billion of "net" super senior exposure, Citigroup held a *further* $10.5 billion of subprime CDO super seniors against which it had procured purported hedges with monoline bond insurers that purportedly insured Citigroup against any loss. These latter CDOs are the "Hedged CDOs". By its November 2007 omissions and January 2008 disclosures, Citigroup sought to create the false impression that it had meaningful insurance against a further $10.5 billion of potential CDO losses. This impression was indeed false, because the monocline insurers could not – and did not – provide the insurance that Citigroup claimed to have obtained.

321. During a conference call that Citigroup held on November 5, 2007, Citigroup's CFO, Gary Crittenden, when directly questioned, alluded to further "secondary and tertiary" exposures to CDOs above and beyond the "net" $43 billion exposure detailed on November 4, 2007 – but refused to disclose anything about them:

> GUY MOSZKOWSKI, ANALYST, MERRILL LYNCH: ...Maybe you can comment for us as a follow-up on the dependence or lack thereof in any of the vehicles that you have exposure to on guarantees or credit support from the monoline insurers like MBIA or Ambac that have

> obviously had some pretty significant credit spread blowouts?
>
> GARY CRITTENDEN: Well we haven't quantified what that exposure is. They obviously are important counterparties for us in a number of different instruments. And **I think you raise an important point which is all that I have talked about today are direct exposures and there is obviously potentially secondary and tertiary exposures that potentially could exist for the Company that are not part of what we talked about today**. This is really the direct exposure that we have. But we, like I would assume virtually everyone else that is a significant financial institution, have counterparty exposure to the monoline.
>
> GUY MOSZKOWSKI: And again, you can't sort of give us a sense for how much that might be?
>
> GARY CRITTENDEN: **No, we haven't disclosed it**.

(Unless otherwise indicated, all emphasis in quotations contained in this complaint has been added).

322. Not until January 15, 2008 did Citigroup disclose that, in addition to the $43 billion of net exposure, Citigroup held $10.5 billion of subprime CDO super seniors against which it had procured purported hedges.

323. On February 22, 2008, Citigroup provided further detail concerning those exposures, including detail as the amounts hedged with the Monolines. As Citigroup's 2007 Form 10-K revealed for the first time, $7.6 billion of the $10.5 billion in "Hedged Super Seniors" had been hedged with the Monolines, primarily AMBAC ($5.5 billion). In addition, AMBAC had provided a further $1.4 billion hedge against an instrument identified as a "Trading Instrument – Subprime."

324. Citigroup has never disclosed any further detail concerning the abovementioned hedges, except insofar as disclosing substantial writedowns to the value of those hedges.

325. AMBAC, however, has arranged/underwritten CDOs (and one further entity that functions like a hedged CDO-square) in which Citigroup (a) after underwriting the CDO and

retaining the super senior tranche, (b) purported to hedge the risk represented by that tranche by entering into a credit default swap with AMBAC.

326. Beginning in early 2007, Citigroup sought, to a greater extent than ever before, to hedge away the super senior risks it retained as a result of the CDO transactions it underwrote. Approximately 65% of Citigroup's entire hedging with AMBAC for CDO-related transactions throughout the last four years took place in four months beginning in February 2007 and ending in June 2007. The sudden jump-up is because Citigroup became sufficiently aware of the risks associated with its assets.

327. Accordingly, in a burst of CDO securitizations between February 2007 and June 2007, Citigroup departed from its prior practice by hedging the risk presented by the resulting, retained super senior tranches. These Hedged CDO transactions marked Citigroup's concession of "endgame" and a wrap-up of Citigroup's unsustainable Ponzi scheme.

328. Why? Because, to an even greater extent than the High Grade CDOs just discussed, the Hedged CDOs were collateralized largely, and in three cases, completely, by the junior tranches of other Mezzanine CDOs. Imminent losses on Mezzanine CDOs, as plaintiffs' allegations and Citigroup's diagrams make clear, would overwhelm Mezzanine CDO single-A tranches, Mezzanine CDO double-A tranches, Mezzanine CDO junior triple-A tranches, and bite deeply into Mezzanine super senior tranches.

329. In this series of Hedged CDO transactions, Citigroup was conceding (1) that the underlying assets (the junior CDO tranches) were worthless, and (2) that the resulting new securities were also worthless. The key was that the largest portion of the resulting new securities – the super senior – would not appear to burden Citigroup, but rather the monoline insurers to whom Citigroup had swapped off the risk. By these Hedged CDO transactions

Citigroup sought to cut impending losses (from100%) by unburdening itself, at the least, of the resulting large super senior tranches (representing 50%-70% of the securitizations).

330. Examination of the Hedged CDOs shows them to be united primarily by their timing (February 2007 - June 2007) and their sizeable collateralization in the form of junior tranches from *other* subprime CDOs.

331. Three later transactions – the $1 billion Class V Funding III, the $1 billion 888 Tactical Fund, and the $2.0 billion Class V Funding IV – are *each 100% backed by other CDOs*. This collateral was almost entirely junior tranches from Mezzanine CDOs previously underwritten by Citigroup.

332. Given the fact that these $4 billion of CDOs were collateralized in their entirety by junior tranches of Mezzanine CDOs, they were among the most toxic CDOs that Citigroup produced.

333. In November 2007, long-growing concerns about the monoline insurers' exposure to CDO losses led AMBAC to disclose details concerning the 28 riskiest CDOs for which it had provided insurance. At least eight of the Hedged CDOs underwritten by Citigroup were on AMBAC's list.

334. Citigroup's Hedged CDOs are qualitatively and quantitatively distinguishable from all the other CDOs on AMBAC's "worst of" list by their far greater proportions of collateral in the form of other CDOs (*see Ambac Update: Subprime Exposure – November 2007*, at p. 8).

335. After AMBAC's November 2007 disclosures, investor and regulator concerns as to AMBAC's losses from its guaranteed CDOs focused particularly on the Citigroup-underwritten CDOs. AMBAC's list of its worst 28 CDOs showed that AMBAC had provided

$29.2 billion of insurance for them. Citigroup's CDOs accounted for $8.96 billion, or 30.7%, of this total.

336. Working from AMBAC's list and full data on the underlying collateral of all the CDOs on that list, one analyst calculated that AMBAC would suffer losses of $6.95 billion. *See* William Ackman, *Letter to Eric Dinallo, New York Superintendent of Insurance et al. re Bond Insurer Transparency; Open Source Research*, January 30, 2008, at p. 13. The Citigroup CDOs accounted for $4.0 billion of those losses, or 57.5% of all of AMBAC's losses. According to the analyst's calculations, four separate Citigroup CDOs – the Class V Funding III, Class V Funding IV, 888 Tactical Fund, and Adams Square Funding II CDOs – would result in effectively total losses even at AMBAC's super senior level.

337. No CDOs underwritten by any other bank was predicted to cause more than a 50% loss. (*Id.*).

338. Citigroup knew full well no later than February 2007 that it had highly risky assets on hand. By its Hedged CDO transactions, Citigroup sought to foist the largest part of those risks off to AMBAC – but in so doing, undermined the very insurance it claimed to have obtained.

339. At a November 26, 2007 conference convened to discuss the CDO risk to the Monoclines insurers, Citigroup analyst Heather L. Hunt provided a presentation titled *Financial Guarantors: The Subprime Overhang*. That analysis, *sotto voce*, showed that AMBAC's most severe problems stemmed from Citigroup's own CDOs. In a slide titled "How the Companies Stack Up", the Citigroup analyst noted for AMBAC that there were "four mezzanine CDOs that are likely to see stress" (Citigroup, *Financial Guarantors: The Subprime Overhang*, November 26, 2007, p. 10). Again, in a slide titled "What's Driving the Stocks?", the Citigroup analyst noted with respect to AMBAC that the market was "concerned about Mezz CDO and CDOs of

Mezz CDOs" (*Id.*, p. 16). More explicitly yet, in a slide titled "AMBAC's Exposure", the Citigroup analyst wrote:

> AMBAC's Exposure
>
> CDOs with Mezzanine Collateral the focus
>
> - Transacted in 1Q07 and 2Q07
> - Three pieces: \$500 mil., \$500 mil., and \$1.4 billion
> - One CDO of BBB RMBS – downgraded to BBB

(*Id.*, p. 32)

340. The four troubling CDOs referred to by the Citigroup analyst were all Citigroup-underwritten CDOs, namely: (1) the \$1 billion Class V Funding III (for which AMBAC had super senior exposure of \$500 million), (2) the \$1 billion 888 Tactical Fund (for which AMBAC had super senior exposure of \$500 million), (3) the \$2.0 billion Class V Funding IV (for which AMBAC had super senior exposure of \$1.4 billion) – i.e., the un-named "three pieces" of \$500 mil., \$500 mil., and \$1.4 billion referred to by the analyst – and (4) the \$1 billion Adams Square Funding II (for which AMBAC had super senior exposure of \$500 million). The Citigroup presentation continued by detailing, still un-named, the structure of the three CDO-squareds whose risks Citigroup had unloaded to AMBAC (*Id.*, pp. 33-34).

341. These three transactions constitute Citigroup's internal recognition that it needed to shield itself to the greatest degree possible from imminent losses on \$4 billion of mezzanine CDO tranches that had been accumulating unsold in Citigroup's warehouse.

II. CDOs: WHAT THE MARKETPLACE KNEW AND BELIEVED

342. Market participants, Citigroup included, the market as a whole, and members of the wider public recognized – between October 2006 and March 2007 – that ABS CDOs would suffer savage losses, and indeed that even the super senior tranches were substantially impaired. Indeed, by March 2007, *there was no longer any question as to whether CDOs were at risk, but*

only as to who was holding that risk. The sole question, from that point on, was simply: Where did the risk go? Although Citigroup formed a large part of the answer, it concealed or misrepresented this material information. By 2006, 40% of all subprime mortgages, and 80% of Alt-A mortgages, were originated on the "basis" of borrower income that was merely "stated" by the borrower rather than documented or verified by the lender. Such "stated income" loans (now famous as "liar loans") were originally offered only in exceptional cases, primarily for self-employed borrowers whose incomes could not be objectively verified by normal means (e.g., wage payment stubs, W-2 forms). But in nonprime mortgages of 2005 and 2006, "stated income" lending was extended wholesale to wage earners – i.e., borrowers whose income was capable of easy and objective verification. Why would a wage earner mortgage be based on "stated" income? In order to "qualify" a borrower for a mortgage that his or her objective income would not allow him or her to qualify for.

343. That ever-riskier mortgages were being made during 2005 and 2006 was not a secret, but rather – and often – front page news. Plaintiffs detail those nonprime mortgages, and their on-their-face risks. As plaintiffs demonstrate, these mortgages were guaranteed to fail, predictably, and no later than early 2007.

344. To summarize: a stunning share of these mortgages – approximately 70%-80% of all subprime mortgages – were "hybrid ARM" mortgages originated with a low "teaser" rate fixed for two or three years, after which point the rates would reset to sky-high levels (on average, 11%-12%). Borrowers "qualified" for such mortgages on the basis of their ability to pay only the low initial rates, rather than the rates to which the mortgages would reset. Worse, even this purported "basis" to pay the low initial rates was often without basis. Upon rate reset, such mortgages would produce "payment shock": payment burdens (as measured by borrower "debt

to income" ratios) that no mortgage banker considered bearable, and that borrowers (who only qualified under the low initial rates) were demonstrably unable to bear.

345. This feature of nonprime mortgages made mortgage performance dependent not on borrowers' ability to continue to pay the mortgages, but on borrowers' ability to *escape* those mortgages before or shortly after rate reset and payment shock. As Citigroup explained:

> **Other Subprime / Alt-A Characteristics**
>
> **70+% of 2005-2006 subprime originations loans were "2-28" or "3-27" ARMs with low "teaser" rates - ARMs are really not intended to be long term mortgages, but rather "bridge" financings - Expectations were that they would be refinanced at the time of the rate reset. When ARMs reset, higher interest rates mean that borrowers experience payment shock of 30% or more...**
>
> (Source: Citi - Fixed Income Research: "Explaining 2006: Worst Vintage in Subprime History", Jan. 26, 2007) (Citigroup, *The Subprime Crisis: An Overview*, March 3, 2008)

346. There were only two avenues of escape: (1) selling the house and using the proceeds to pay off the mortgage, or (2) refinancing the mortgage. These means of escape were thus dependent on two factors: (1) continued housing price appreciation (which would (a) allow for profitable sale of the property and thus repayment of the mortgage, or (b) make refinancing palatable to lenders); and (2) continued laxity in nonprime lending standards (which would allow dubious borrowers with dubious mortgages to refinance).

347. As demonstrated *infra*, in late 2006 and early 2007 both these avenues of escape were closed off. Housing prices began to decline, and nonprime lending standards began to constrict, at first at the margins, and then severely. As subprime defaults and losses began mounting in the middle of 2006, lenders began tightening standards. As those losses mounted in late 2006 and early 2007, they bankrupted and forced the closure of most subprime mortgage originators, and convinced the few that remained to dramatically tighten mortgage origination standards. The result: no more refinancing, especially of the sort of mortgages that had been

made in 2005 and 2006. Nonprime mortgages, at the cusp of an immense $1 trillion-plus wave of rate resets beginning in 2007 and ending in 2009, were locked into imminent payment shock and default. To give a sense of scale: during 2007, 35% of resetting mortgages either defaulted upon reset or became delinquent within the six months following rate reset according to Citigroup, *The Subprime Crisis: An Overview*, March 3, 2008, at p. 21. And because housing prices were declining and because most of these mortgages had been made with little or no down payment, the mortgages would experience substantial loss upon default.

348. As demonstrated herein, the consequences of these nonprime mortgage market developments for CDOs were: (a) straightforward, and (b) widely understood at the time. These widely known facts led to a widely known reality: (i) that losses would rise higher into the RMBS tranche structure than initially expected; (ii) that extant RMBS (and CDO) credit ratings were no longer valid, because each tranche was not as far removed from real loss as its originally-assigned ratings indicated; and (iii) that the consequences would actually be most drastic for CDOs, precisely because they were collateralized by the lower and middle tranches of nonprime RMBS (i.e., the ones closest to encroaching mortgage losses).

349. It was indeed market awareness of these facts – and their implications for mortgage performance, RMBS performance and CDO performance – that caused market prices for RMBS tranches and CDO tranches, and indexes tracking such market prices, to decline substantially during each of the first three quarters of 2007.

350. These fundamental facts and their consequences are not matters of hindsight. They were recognized and well understood at the time. By March 2007 at the latest, experts and market participants – including Citigroup – had assembled these fundamental facts into a coherent and correct analysis of what was then happening and what the consequences were. No later than March 2007, Citigroup's internal documents show awareness of the enhanced risks of

those products. Its own credit strategists acknowledged the risks associated with even the most senior tranches of CDOs and urged hedging or sale. Citigroup, as an organization, adopted this conclusion, and starting as early as February 2007 it initiated transactions in which it sought to unload onto others billions of dollars of risk and of soon-to-be-worthless CDO securities.

351. By April and May 2007, many market participants were predicting a CDO bloodbath. The only question remaining was "Who was holding the risk?".

352. In fact, as set forth more fully herein, the only CDO-related matter that was not *known was that Citigroup had any exposure at all, let alone $57 billion, to such doomed instruments*. It was already recognized that such instruments were impaired and would only become more so. The only questions that remained were "Where did the risk go? Who was holding these instruments?" The market was already focusing on who was on the hook for the losses these instruments carried. Despite such market focus, the fact of Citigroup's exposure – let alone the extent – was completely unrecognized. That was because these instruments made no appearance in Citigroup's books. Therefore, the market believed that Citigroup had escaped exposure under the (mistaken) belief that Citigroup had sold these instruments to others.

353. But Citigroup had not. Throughout the class period, Citigroup had retained huge amounts of decreasingly valuable and increasingly risky CDO assets, and Citigroup concealed – affirmatively schemed – to keep this information away from the public. *So, by November 2007, the shock was not that the value of these instruments had declined materially, but rather and only that Citigroup held approximately $57 billion of such instruments – holdings whose existence had never before disclosed and whose value had disintegrated long before.*

354. It cannot be emphasized enough that throughout their existence, the ABX and TABX indexes (the TABX was introduced in February 2007) worked at all times to synthesize the above-discussed fundamental factors (subprime mortgage performance, refinancing

opportunities, housing price data) into efficient market valuation of CDOs' primary assets (subprime RMBS tranches, via the ABX) and of Mezzanine CDO tranches (via the TABX). These indexes were, in sum, directly relevant, directly observable market indicators of CDO value. Both the relevant ABX and TABX indexes plunged in February/March 2007; fell further during June 2007; and plunged again in July and August 2007 – indicating: (a) by March 2007, that even super senior tranches were substantially impaired; (b) by June 2007, that super senior tranches were deeply impaired; and (c) by July/August 2007, that super senior tranches had already lost the majority of their value.

355. The reality of severe CDO losses had long been known – indeed, as demonstrated below in myriad ways, Citigroup itself understood that reality very early on.

356. The only matter not *publicly* known was that Citigroup was actually, and massively, exposed to such losses. That was because, even as ABS CDO values were plummeting throughout 2007, Citigroup never disclosed that it had amassed an ABS CDO position of any size, let alone that it was in fact holding (now deeply impaired) ABS CDO tranches with a face value exceeding $57 billion.

A. The Housing Price Bubble and The Nonprime Mortgages Originated Under Bubble Conditions

357. Prior to the class period, mortgage lending had been dominated by "conforming" mortgage origination. The term "conforming" refers to a set of standards and practices, developed and refined over decades of mortgage banking experience to reduce mortgage lending risk, to which these mortgages conformed. Mortgage risks are at the most basic level twofold: (a) the risk that a mortgage will default, and (b) the degree of loss upon default (also termed "loss severity"). Among the conforming practices and standards developed to reduce these risks: (i) requirement of a substantial down payment of 20% (which lessened default risks and loss severity upon default); (ii) objective verification and documentation of borrower income (to

ensure the borrower had the ability to pay, thus lessening default risk); (iii) maximum debt-to-income ratios of approximately 35% (again, ensuring that the borrower had the ability to pay, thus lessening default risk); (iv) to the extent that the mortgage was an adjustable rate mortgage, assessing debt-to-income qualification at the "fully indexed" rate to which the mortgage would reset (again, ensuring that the borrower had the ability to pay, thus lessening default risk); and (v) certain minimum standards of borrower creditworthiness (i.e., prime borrowers).

358. During the class period, these conforming standards and practices fell by the wayside, and "nonconforming" mortgage origination – i.e., subprime mortgages and Alt-A mortgages – boomed. Subprime mortgage origination tripled from $190 billion in 2001 to $600 billion 2006; while Alt-A mortgage origination sextupled from $60 billion of $380 billion.

359. Before detailing these nonconforming nonprime mortgages, and the risks they presented, plaintiffs briefly turn to why they were made.

360. Most briefly: they were products of a housing boom. This boom initially operated under a self-reinforcing "virtuous" credit cycle that operated in the following manner. Unprecedentedly low interest rates operative between 2001 and 2005 meant low mortgage rates. That, in turn, meant that borrowers could afford more "house" with the same income (e.g., because their monthly payments were calculated on 6% rates rather than 9% rates). That allowed housing prices to rise. Rising housing prices acted to "cure all evils". Defaults were few (because, rather than defaulting, a borrower could sell the house at a profit). Loss upon default was nearly nonexistent (because, upon foreclosure, the lender could sell the property and recoup the amount it lent). Under these conditions, any loan was a "good" loan. Lenders began to relax standards and originate more nonprime loans, and given rising housing prices, these loans appeared to perform well as well. Indeed, by relaxing standards, lenders relaxed their bottleneck on the pool of housing demand (i.e., borrowers qualifying for a mortgage), and the increased

supply of qualifying borrowers acted as a further boost to housing prices. Thus, the CEO of Citigroup's Global Wealth Management Division termed it, the 2003-2005 time period was a "credit nirvana".

361. The virtuous cycle continued: as the mortgages performed well, so did the mortgage-backed securities such as nonprime RMBS and CDOs. Increased demand for CDOs led to increased CDO demand for nonprime RMBS, which led to increased demand for nonprime mortgage origination. The boom in CDOs created a boom in nonprime mortgages that were originated precisely because they could be securitized. The flood of CDO-driven funding for nonprime mortgages led mortgage originators to further relax their standards, in order to originate more mortgages to meet the boom in securitization demand. As more and more "qualified" buyers poured into the housing market with mortgages, housing prices rose yet further.

362. Though housing prices are intermediated by operative interest rates and by operative lending standards, they nevertheless are ultimately rooted to one bedrock – borrowers' incomes. As housing prices rose, fewer and fewer borrowers had the income to allow them to qualify for mortgages that would allow them to purchase properties at such inflated prices. Fewer borrowers had the assets to provide the customary down payments on ever-more expensive houses.

363. In order to maintain origination volume, lenders further loosened their standards. The mortgages, as detailed below, became ever riskier. And thus, as in every boom, the seeds of the bust were sown. The virtuous cycle contained within it its own destruction. This was not a secret, either in principle or in fact. Rather, this cycle has a well-understood and long history. As Moody's explained in March 2007:

> During periods of growth in the housing and mortgage markets, increased borrowing demand allows existing mortgage lenders to expand their

> business and new lenders to enter the market. Eventually, these trends create overcapacity in the mortgage lending market as borrowing demand slows or falls. As the lending market cools (e.g., when interest rates rise, home price increases abate, or the economy slows), **competition among lenders for the reduced pool of borrowers heats up and lenders may lower credit standards (i.e., make riskier loans) in order to maintain origination volume. The riskier loans are more likely to become delinquent and default**.
>
> **Lending behavior in the subprime mortgage market over the past few years has, on average, followed this pattern. Through 2005 and 2006, in an effort to maintain or increase loan volume, lenders introduced alternative mortgage loans that made it easier for borrowers to obtain a loan**...
>
> (Moody's Investors Service, *Challenging Times for the US Subprime Mortgage Market*, March 7, 2007)

364. Such nonprime loans, originated to feed to the securitization market, formed the basis for the collapse of the virtuous cycle. This is the way the cycle eternally turns: Many current sub-prime mortgage problems are **classic end-of-the-cycle problems** such as risk stacking and eased underwriting to maintain volumes by boosting so-called affordability to more would-be homeowners. **We have been to this movie before in this cyclical real estate market. It usually doesn't turn out well** for the heroine... (Moody's Investors Service, *Sub-Prime Mortgages: An Integrated Look into Credit Issues Today and What to Expect*, March 9, 2007).

365. When the cycle turns, it sets in motion self–reinforcing conditions that transform the cycle from "virtuous" to "vicious". Risky loans are made, defaults start to rise, mortgage performance begins to worsen, and mortgage-backed security performance begins to worsen. Investors turn away from mortgage-backed securities, leading to decreased demand for mortgages, and lenders tighten their lending standards, further decreasing mortgage origination. As the old risky loans head to default and as fewer new loans are being made, the available supply of properties increases and the funds available to purchase those properties decreases. Housing prices begin to fall. Falling housing prices themselves increase mortgage defaults and

increase loss severity upon default. Mortgage-backed security performance worsens, decreasing demand for and funding of mortgages, leading to further decreases in housing prices, leading to greater mortgage defaults and greater loss severity upon default.

366. During 2005 and 2006, it was no secret that the mortgages being originated were ever riskier; rather, it was a frequent source of front-page news. All the standards to which mortgages had previously and primarily "conformed" were loosened and obliterated, one by one and in conjunction ("risk layering").

(a) Loans were made to ever-less-creditworthy borrowers on ever-more-risky terms. The less credit-worthy the borrower, the greater the risk of default.

(b) Down payment requirements were first loosened and then ignored all together, through "no money down" loans and through providing a "simultaneous second" mortgage (known as a "piggyback") originated in conjunction with the first. In such piggyback arrangements, a first lien mortgage for approximately 80% of the property value was originated in conjunction with a simultaneous piggyback, often for the remaining 20% of the property value. Such high "loan to value" (LTV) mortgages increased both the risk of default, and the severity of loss upon default. The former, because the less equity a borrower has invested in a property, the more likely the borrower is to default. The latter, because borrower down payments operate to cushion the lender from losses if the mortgage defaults. In conforming loans with 20% down payments, the lender puts up 80% of the property value: if the mortgage defaults, the lender can foreclose, sell the property, and still recoup (after substantial foreclosure costs) the 80% sum it advanced. In the absence of substantial down payments, where the lender has advanced a sum approaching the total value of the property, the lender is exposed to more severe loss upon default.

(c) Debt-to-income levels were likewise raised so that mortgages were originated whose payments consumed 40% or more of borrower income. Debt to income is the primary dynamic behind the risk of default. The higher the share of borrower income dedicated to monthly mortgage payments, the higher the risk of default.

(d) In order to maintain origination volume and produce more mortgages, lenders developed the "hybrid" adjustable rate mortgage, or hybrid ARM. These mortgages featured a low, fixed rate for two or three years (the "teaser rate"), after which point the rates would adjust to a certain level above a given interest rate index (the "fully indexed rate"). In practice, during the class period, the initial teaser rates were between 6% and 8%, and the fully indexed rates were 11% and up. Thus, when rates reset after 2 or 3 years, such borrowers would experience "payment shock" as their monthly payments rose 30% or more. *80% of subprime mortgages originated during 2005 and 2006 were just such hybrid ARMs.* Such mortgages could not actually continue to be paid: they could only be escaped from through refinance or sale, or they would default. Such mortgages thus carried precisely-defined, obvious risk of default.

(e) Worse, in order to make the mortgages "work" – i.e., in order to "qualify" the borrower for such a mortgage – the borrower's debt-to-income ratio was calculated at the low initial teaser rates rather than the rates to which the mortgages would soon reset. More concretely: the borrower income was sufficient to bear the mortgage payment burden under the teaser rate, but not sufficient to bear the burden under the fully-indexed rate that would approach in two or three years. This practice made the risk of default a near certainty for such mortgages were refinancing not an option.

(f) Worse yet, in order to make the mortgages "work" even under such debased

debt-to-income standards, income was often "stated" by the borrower rather then documented or objectively verified by the lender. Initially, such "stated income" loans (now famous as "liar loans") were offered only in exceptional cases, primarily for self-employed borrowers whose incomes could not be objectively verified by normal means (e.g., wage payment stubs, W-2 forms). During the class period, "stated income" lending moved from exception to norm. By 2006, in excess of 40% of subprime loans and 80% of Alt-A loans were originated on a stated income basis, primarily to wage earners – i.e., borrowers whose income was capable of easy and objective verification. Why would a wage earner mortgage be based on "stated" income? In order to "qualify" a borrower for a mortgage that his or her objective income would not allow him or her to qualify for. Again, "stated income" lending increased the risk of default.

(g) Finally, in order to qualify more borrowers for more mortgages, a variety of once-rare mortgages became prevalent, all of which were structured to require even lower initial payments. First, 40, 45 and 50 year mortgages were widely offered, all of which required lower monthly payments than the 30 year mortgage. Second, interest-only mortgages were widely offered, which required lower payments for an initial term of 5-10 years during which no principal had to be repaid. Third, option-ARMs were widely offered, giving borrowers the "option" to make very low monthly payments for an initial period that were substantially less than the mortgage's requisite monthly payment. Most borrowers chose this option. The difference between the minimum payment and the requisite payment was added back onto the loan balance ("negative amortization"). After years of such minimum payments, the loan balance would actually swell to a price as much as 125% greater than the entire value of the house. Option ARMs typically capped such negative amortization at 125% – which, when hit, would cause the mortgage to reset

to a payment level that would pay off the mortgage fully in the remainder of its 30 year term. The payment shock produced by such Option ARMS was astronomical, both because of (1) the difference between the minimum payment and the fully-amortizing payment; and (2) because the loan balance was substantially larger than it was at inception. The common theme of all these mortgages was that principal was paid back ("amortized") more slowly, which increased both the risk of default (the borrower had less equity in the property) and the severity upon default (the lender was protected by less borrower equity). In a sentence, in these loans, amortization was loosened (the 40-year term), extinguished for an initial period (interest only loans), and even made negative (Option ARMs).

367. What did the payment shock produced by such loans look like? The key matter is what these resetting rates will do to debt-to-income (DTI) ratios. Even at the initial teaser rates, borrower DTI was already high (on average, 40%). Analysis by Federal Reserve Board economists Adam B. Ashcraft and Til Schuermann shows what happens as rates reset: *these mortgages will impose impossible payment burdens on the borrowers. See* Adam B. Ashcraft and Til Schuermann, *Understanding the Securitization of Subprime Mortgage Credit*, Federal Reserve Bank of New York - Staff Reports, Staff Report No. 318, March 2008, pp. 16-19. Assuming the index interest doesn't change, at first reset, in month 25 of 2/28 ARMs, DTI for regular 2/28 ARMs will go to 45.5%, and at next reset in month 31 will go to 50.4%. For 40-year-term ARMs, DTI increases will be more severe yet: DTI rises to 47.3% in month 25 and 52.9% in month 31. The interest-only ARMs will experience yet more severe increases: not only does DTI rise to 47.4% in month 25 and 58.1% in month 31, but, after the initial five-year interest-only period expires, the inception of principal payments in month 61 will cause DTI to rise to 62.3%.

368. In short, most nonprime mortgages would produce waves of "payment shock" that, in the third year of these mortgages, would result in borrower payment burdens that any mortgage banker would consider insane. Indeed, as the Federal Reserve Board economists concluded:

> Without significant income growth over the first two years of the loan, **it seems reasonable to expect that borrowers will struggle to make these higher payments. It begs the question why such a loan was made in the first place.** (*Id.*)

369. The answer: because borrowers thus secured loans they would not otherwise be able to access (and which they were highly likely to be unable to pay at rate reset), while lenders secured more high-paying mortgages that could be sold into the securitization markets. But, all of it worked only if housing prices continued to rise and lending standards continued to be lax, so that refinancing would be possible before payment shock. Such loans were little more than "bridge" financing for two or three years.

370. The nonprime mortgages originated between 2005 and 2007 featured all the above risks to unprecedented degree. They featured lower down payments than ever before. They featured less amortization than ever before. They were made on the basis of "stated", unverified income to a higher degree than ever before. Almost all of them were hybrid ARMs or option ARMs. Most often, they featured several of these risks in conjunction: e.g., stated income, interest-only hybrid ARMs with no down payments, accompanied by "simultaneous second" piggybacks.

371. The characteristics of subprime and Alt-A mortgages of 2005-2006 made several fundamental matters clear.

372. First, most of these mortgages could not actually survive much past the rate resets looming at their two-year, three-year or negative-amortization-cap anniversaries. Borrowers had been squeezed into these mortgages on the basis of debt-to-income levels – even under dubious

"stated" income – calculated at the initial low rates rather than the rates to which payments would reset.

373. Second, this meant that these mortgages were dependent on borrowers' ability to refinance their way out of these mortgages before experiencing extended payment shock upon rate reset. Nonprime mortgages were uniquely dependent on this refinancing escape hatch. By contrast, prime, conforming mortgages were often fixed rate mortgages which generated no payment shock at all. Moreover, many prime borrowers in adjustable rate mortgages often had "extra" income to divert to any increased mortgage payments: their loans had been underwritten on the basis of borrower debt-to-income at the fully-indexed rate, rather than the low initial rate.

374. Third, the ability to refinance was dependent primarily on two matters. First, continued housing price appreciation. As mentioned above, rising housing prices work to erase all sins. If housing prices continued to rise, a new loan could be secured in an amount sufficient to pay off the old, because the property securing the new loan had appreciated since the old loan was originated. Second, continued leniency in origination/underwriting standards. Nonprime 2005-2006 loans broke all objective records for degree of risk: low or no borrower equity; low or no documentation; low, no or negative amortization; near-total reliance on low initial rates provided by hybrid ARMS and Option ARMs. Were underwriting standards to tighten, many borrowers dependent on such mortgage products would not be able to secure new loans to pay off the old.

375. To sum up, then, the nonprime mortgages of 2005-2006 were not sustainable in and of themselves. On the contrary, left to their own devices, it was clear that large numbers would default soon. The fact that they were made was, in essence, a bet that housing prices would continue to rise and that lending standards would continue to be loose. This bet was objectively clear at the time of the mortgage originations. Whether it should or should not have

been made is one matter; the clarity of the risk proposition is another. The risk proposition was clear.

376. Between mid-2006 and early 2007, it became increasingly clear that this bet would fall on the wrong side of its risk proposition, and in so doing lose a tremendous amount of money. Both pillars on which this bet rested collapsed. Housing prices slowed and began to fall, steeply, especially in the largest mortgage markets (Florida, California and western Sunbelt states). After monthly mortgage reports began to show in late 2006 that 2006-vintage mortgages were performing worse than any prior mortgage vintage on record, subprime and Alt-A lending contracted and largely collapsed. Refinancing was no longer an available option, and housing prices were no longer able to save anyone. The underlying mortgages were locked into imminent default as a vast wave of 2/28 and 3/27 ARM rate resets, for mortgages originated in 2005-2006, would begin in 2007, with no escape hatch either through refinancing (unavailable) or profitable sale (housing prices were declining). As most of these mortgages had been made at peak prices, with little or down payment and with little or no amortization, losses upon default would be severe.

377. The consequences for CDOs, collateralized by the lower, already-tranched risks of pools of these very mortgages, would be severe – as was widely recognized in early 2007.

B. <u>The Bubble Bursts in Early 2006 and Housing Prices Fall</u>

378. Boom of course preceded bust. By mid-2005, housing prices had enjoyed such dramatic price appreciation that The Economist (among many others) identified it as the "biggest financial bubble in history". Housing prices had detached themselves to an unprecedented degree from underlying fundamentals (household income, rental prices), and the ultimate correction of this anomaly, The Economist concluded, would entail the first fall in nationwide

average housing prices since the Great Depression and could "decide the course of the entire world economy over the next few years":

> PERHAPS the best evidence that America's house prices have reached dangerous levels is the fact that house-buying mania has been plastered on the front of virtually every American newspaper and magazine over the past month. **Such bubble-talk hardly comes as a surprise to our readers. We have been warning for some time that the price of housing was rising at an alarming rate all around the globe, including in America. Now that others have noticed as well, the day of reckoning is closer at hand. It is not going to be pretty. How the current housing boom ends could decide the course of the entire world economy over the next few years.**
>
> This boom is unprecedented in terms of both the number of countries involved and the record size of house-price gains. **Measured by the increase in asset values over the past five years, the global housing boom is the biggest financial bubble in history. The bigger the boom, the bigger the eventual bust.**
>
> *****
>
> The economic damage this time could be worse than in the past because house prices are more likely to fall in nominal, not just real terms. **Not only do houses in many countries look more overvalued than at previous peaks, but with inflation so low, prices would have to stay flat for at least a decade to bring real prices back to long-run average values. Most important of all, in many countries this house-price boom has been driven far more by investors than in the past, and if prices start to dip, they are more likely to sell than owner-occupiers. In America this could mean the first fall in average house prices since the Great Depression.**
>
> (The Economist, *The danger of a global house-price collapse*, June 16, 2005)

379. Housing price growth peaked in the final quarter of 2005. Nobel Prize-winning economist Paul Krugman greeted 2006 by concluding, in a January 2, 2006 column published in the New York Times, that "at this point the overall market value of housing has lost touch with economic reality. And there's a nasty correction ahead":

> No Bubble Trouble?
>
> ... Last summer I suggested that when discussing housing, we should think

of America as two countries, Flatland and the Zoned Zone.

In Flatland, there's plenty of room to build houses, so house prices mainly reflect the cost of construction. As a result, Flatland is pretty much immune to housing bubbles...

In the Zoned Zone, by contrast, buildable lots are scarce, and house prices mainly reflect the price of these lots rather than the cost of construction. As a result, house prices in the Zoned Zone are much less tied down by economic fundamentals than prices in Flatland.

By my rough estimate, slightly under 30 percent of Americans live in the Zoned Zone, which comprises most of the Northeast Corridor, coastal Florida, much of the West Coast and a few other locations...

But because Zoned Zone homes are much more expensive than Flatland homes, the Zone looms much larger in the housing story than its share of the population might suggest. By my estimate, more than half of the total market value of homes in the United States lies in the Zoned Zone.

And because home prices have risen much more rapidly in the Zone than in the rest of the country, the Zoned Zone accounts for the great bulk of the surge in housing market value over the last five years.

So if we want to ask whether housing values make sense, data on the median house nationwide are irrelevant. We need to focus on houses in the Zoned Zone. And there the numbers are anything but reassuring.

In the Zoned Zone, the story that rising home prices have been offset by falling interest rates is all wrong: prices have risen so much that housing has become much less affordable. According to Economy.com, the cost of owning a home in the New York metropolitan area went from 25 percent of median income in 2000 to 38 percent today. In Miami, the numbers were 21 percent and 42 percent, respectively; in Los Angeles, 31 percent and 55 percent.

Even so, the current cost of owning a home in the Zoned Zone isn't entirely unprecedented. Roughly similar percentages of median family income were needed to afford houses in the early 1980's.

But that's hardly a comforting comparison, which is where the economic history comes in. You see, the unaffordability of housing in the early 1980's led to an epic collapse in the housing industry. Housing starts fell from more than 2 million in 1978 to only 1.06 million in 1982. And the housing implosion was one of the main factors in the worst economic slump since the Great Depression, which brought the unemployment rate to a peak of 10.8 percent at the end of 1982.

> **It's also worth noting that the reason housing was so expensive in 1981 and 1982 was that mortgage interest rates were extremely high. That made recovery easy, because all it took to make housing affordable again was for interest rates to return to normal levels.**
>
> **This time, with interest rates already low by historical standards, restoring affordability will require a big fall in housing prices.** So here's the bottom line: yes, northern Virginia, there is a housing bubble. (Northern Virginia, not Virginia as a whole. Only the Washington suburbs are in the Zoned Zone.) **Part of the rise in housing values since 2000 was justified given the fall in interest rates, but at this point the overall market value of housing has lost touch with economic reality. And there's a nasty correction ahead.**

(Paul Krugman, New York Times, *No Bubble Trouble?*, January 2, 2006).

380. As 2006 progressed, hard data and objective fact everywhere evidenced that the bubble was deflating.

381. During 2006 economists and other expert market participants and observers understood the hard data. The fate of the nation's housing markets was prominently debated and reported throughout 2006. The main debate was not whether a "bubble" existed but whether its collapse would result in a "soft landing" (i.e., a new plateau at current price levels) or a "hard landing" (i.e., the sharp decline necessary to return to historical norms). As 2006 progressed, increasing numbers of experts began to find themselves in the "hard landing" camp.

382. On May 5, 2006, Fortune reported that certain of the higher-flying bubble markets had become "dead zones" – housing prices had escaped the orbit of affordability, sales were plunging and inventory rising. Throughout the bubble markets, the ratio between housing prices and income levels was 40% higher than historical norms – so the impasse between housing prices and household income would likely be widespread and severe. For affordability to be restored, either household income would have to rise substantially, or housing prices would have to fall substantially, or some combination of the two. In the short term, Fortune concluded, housing prices were likely to fall substantially (10%-15%) and then stagnate for years as

household incomes rose to close the rest of the affordability gap. Alternatively, Fortune noted, if household incomes proved unable to rise, housing prices would fall severely, by 30% or more:

> Welcome to the dead zone
> Real estate survival guide: The great housing bubble has finally started to deflate, and the fall will be harder in some markets than others. The stories keep piling up. In many once-sizzling markets around the country, accounts of dropping list prices have replaced tales of waiting lists for unbuilt condos and bidding wars over humdrum three-bedroom colonials.
>
> The message is clear. Five years of superheated price gains rescued America from stock market collapse, put billions in consumers' pockets, and ignited a building boom that bolstered the nation's economy. But it's over. The great housing bubble has finally started to deflate.
>
> *****
> **And what's happening in these areas is a sign of what may be coming in the rest of the bubble zone -- the two dozen or so mainly coastal cities and their suburbs that have seen prices soar in recent years and account for 60 percent of the nation's residential real estate value.**
>
> **The problem is as basic as beams and trusses: The triple threat of soaring prices, higher mortgage rates and relentlessly rising property taxes has drastically increased the cost of ownership and put many homes out of reach for a huge number of potential buyers.**
>
> *****
>
> With houses hovering beyond the reach of most potential purchasers, formerly frantic markets grow eerily calm. People who rush to list their homes, hoping to grab a fat gain just before prices break, take them off the market.
>
> Sales shrink as buyers float low-ball offers, and sellers refuse them. Realtors and mortgage brokers find other jobs. **The bubble areas turn into Dead Zones.**
>
> **There's no mystery about what it will take to close the affordability gap and bring the markets back to life: Prices will have to come down...**
>
> *****
>
> **The real losers will be those who bought recently at inflated prices and are forced to sell, usually because they're taking a job in another city or can't make the payments when their adjustable mortgage rate jumps.** And speculators who bought overpriced condos in hope of a quick killing are going to get hosed.

(Fortune, *Welcome to the Dead Zone*, May 5, 2006)

383. In May 2006, the California Association of Realtors lowered their expectations for California home sales from a 2% decline (2006 sales vs. 2005 sales) to a 16.8% decline. This dramatic decline led the Association's chief economist to abandon continued usage of the term "soft landing", as it no longer matched the reality it purported to describe:

> *Realtors: `Soft Landing' Falls Short*
>
> Leslie Appleton-Young is at a loss for words.
>
> **The chief economist of the California Assn. of Realtors has stopped using the term "soft landing" to describe the state's real estate market, saying she no longer feels comfortable with that mild label.**
>
> "Maybe we need something new. That's all I'm prepared to say," Appleton-Young said Thursday.
>
> *****
>
> For real estate optimists, the phrase "soft landing" conveyed the soothing notion that the run-up in values over the last few years would be permanent. It wasn't a bubble, it was a new plateau.
>
> **The Realtors association last month lowered its 2006 sales prediction from a 2% slip to a 16.8% drop. That was when Appleton-Young first told the San Diego Union-Tribune that she didn't feel comfortable any longer using "soft landing."**
>
> (LA Times, *Realtors: `Soft Landing' Falls Short*, July 21, 2006, p. C- 2)

384. In August 2006, after recent data demonstrated dramatically slowing sales, the highest inventory of unsold homes in decades, and stagnant home prices the chief economist for the National Association of Realtors – a long-time advocate of the "soft landing" school – joined his California Association of Realtors counterpart in abandoning further usage of "soft landing", and admitted that "hard landings" in certain markets were probable:

> *Existing-home sales plunge to a two-year low; Inventories of unsold homes rise to 13-year high*
>
> **July was dry for the U.S. real estate market, as sales of existing homes plunged 4.1% to a two-year low, prices stagnated and the number of**

homes on the market soared to a 13-year high, according to a report from the National Association of Realtors released Wednesday.

The report shows a continued implosion in the housing market, with inventories up sharply while prices are softening. Sales are down 11.4% in the past year to a seasonally adjusted annual rate of 6.33 million compared with 6.60 million in June.

(Marketwatch, *Existing-home sales plunge to a two-year low; Inventories of unsold homes rise to 13-year high,* Aug. 23, 2006)

*****

Existing home sales drop 4.1% in July, median prices drop in most regions

Existing home sales posted an unexpectedly sharp drop last month to the lowest level since January 2004 and home prices fell in all regions of the country but the South, the National Association of Realtors said Wednesday.

The downward pressure on prices probably will continue through the beginning of next year because the inventory of homes for sale has surged to the highest level in 13 years. There are now 3.86 million homes for sale, a 7.3-month supply.

The weakness in the market is being driven by higher interest rates, low affordability, and speculators who are dumping investment properties back on the market because they couldn't flip them for a profit.

"I was disappointed, it was a lot lower than I anticipated," said David Lereah, NAR's chief economist. "What is clear to me is sellers are more stubborn than I expected them to be. We definitely need a correction in prices in order for buyers to come back into the market."

He said he expects home prices to come down 5% nationally, more in some markets, less in others. And a few cities in Florida and California, where home prices soared to nose-bleed heights, could have "hard landings," he said.

(USA Today, *Drop in Home Sales Puts Pressure on Prices*, Aug. 24, 2006)

385. Others looking at the same NAR data were even less sanguine. Economist Nouriel Roubini observed “every housing indicator is in free fall, including now housing prices”, and

concluded that the ongoing housing collapse would push the U.S. into a "much nastier, deeper and more protracted" recession than any in recent memory:

> *Recession will be nasty and deep, economist says Housing is in free fall, pulling the economy down with it, Roubini argues*
>
> The United States is headed for a recession that will be "much nastier, deeper and more protracted" than the 2001 recession, says Nouriel Roubini, president of Roubini Global Economics.
>
> Writing on his blog Wednesday, Roubini repeated his call that the U.S. would be in recession in 2007, arguing that the collapse of housing would bring down the rest of the economy.
>
> Roubini wrote after the National Association of Realtors reported Wednesday that sales of existing homes fell 4.1% in July, while inventories soared to a 13-year high and prices flattened out on a year-over-year basis.
>
> **"This is the biggest housing slump in the last four or five decades: every housing indicator is in free fall, including now housing prices," Roubini said. The decline in investment in the housing sector will exceed the drop in investment when the Nasdaq collapsed in 2000 and 2001, he said.**
>
> **And the impact of the bursting of the bubble will affect every household in America, not just the few people who owned significant shares in technology companies during the dot-com boom, he said. Prices are falling even in the Midwest, which never experienced a bubble, "a scary signal" of how much pain the drop in household wealth could cause.**

(MarketWatch, *Recession will be nasty and deep, economist says Housing is in free fall, pulling the economy down with it, Roubini argues*, August 23, 2006).

386. A more detailed analysis, provided on the same day and provoked by the same data, led *Barron's* Lon Witter to exactly the same conclusions:

> *The No- Money Down Disaster*
>
> **A housing crisis approaches: According to the Commerce Department's estimates, the national median price of new homes has dropped almost 3% since January. New-home inventories hit a record in April and are only slightly off those all-time highs. Existing-home inventories are 39% higher than they were just one year ago. Meanwhile, sales are down more than 10%.**

*****

By any traditional valuation, housing prices at the end of 2005 were 30% to 50% too high. Others have pointed this out, but few have had the nerve to state the obvious: Even if wages and GDP grow, the national median price of housing will probably fall by close to 30% in the next three years. That's simple reversion to the mean.

A careful look at the reasons for the rise in housing will give a good indication of the impact this drop will have on the stock market. They include, in chronological order: The collapse of the Internet bubble, which chased hot money out of the stock market; rock-bottom interest rates; 50 years of economic history that suggested housing never goes down, and creative financing.

The first three factors might not be enough to cause a crash, except that together they led to the fourth factor. Irresponsible financing causes bubbles. It causes individuals to buy houses they can't afford. It causes speculation to run wild by lowering the bar to entry. Finally, it leads individuals who bought houses years ago at reasonable prices into the speculative borrowing trap. The home-equity credit line has supported American consumer spending, but at a steep price: Families that tapped into their home equity with creative loans are now in the same trap as those who bought homes they couldn't afford at the top of the market.

The cost and risk of adjustable-rate financing can be devastating. Consider a typical $250,000 three-year adjustable-rate mortgage with a 2% rate-hike cap. If the monthly payment now is $1,123, after the first adjustment, the monthly payment is $1,419. After the second adjustment, the monthly payment is $1,748, a $625-per-month increase. That's $7,500 more per year just to maintain the same mortgage. If you think high gas prices are biting the consumer, consider the cost of mortgage adjustments.

Some more numbers:

-- 32.6% of new mortgages and home-equity loans in 2005 were interest only, up from 0.6% in 2000

-- 43% of first-time home buyers in 2005 put no money down

-- 15.2% of 2005 buyers owe at least 10% more than their home is worth

-- 10% of all home owners with mortgages have no equity in their Homes

-- $2.7 trillion dollars in loans will adjust to higher rates in 2006 and 2007.

These numbers sound preposterous, but the reasoning behind them is worse. Lenders have encouraged people to use the appreciation in value of their houses as collateral for an unaffordable loan, an idea similar to the junk bonds being pushed in the late 1980s. The concept was to use the company you were taking over as collateral for the loan you needed to take over the company in the first place. The implosion of that idea caused the 1989 mini-crash.

Now the house is the bank's collateral for the questionable loan. But what happens if the value of the house starts to drop?

The answer, at least from banks, is already clear: Float the loans. The following figures are from Washington Mutual's annual report: At the end of 2003, 1% of WaMu's option ARMS were in negative amortization (payments were not covering interest charges, so the shortfall was added to principal). At the end of 2004, the percentage jumped to 21%. At the end of 2005, the percentage jumped again to 47%. By value of the loans, the percentage was 55%.

Every month, these borrowers' debt increases; most of them probably don't know it. There is no strict disclosure requirement for negative amortization.

This financial system cannot work; houses are not credit cards. But WaMu's situation is the norm, not the exception. The financial rules encourage lenders to play this aggressive game by allowing them to book negative amortization as earnings. In January-March 2005, WaMu booked $25 million of negative amortization as earnings; in the same period for 2006 the number was $203 million.

Negative amortization and other short-term loans on long-term assets don't work because eventually too many borrowers are unable to pay the loans down -- or unwilling to keep paying for an asset that has declined in value relative to their outstanding balance. Even a relatively brief period of rising mortgage payments, rising debt and falling home values will collapse the system. And when the housing-finance system goes, the rest of the economy will go with it.

By the release of the August housing numbers, it should become clear that the housing market is beginning a significant decline. When this realization hits home, investors will finally have to confront the fact that they are gambling on people who took out no-money-down, interest-only, adjustable-rate mortgages at the top of the market and the financial institutions that made those loans. The stock market should then begin a 25%-30% decline. If the market ignores the

warning signs until fall, the decline could occur in a single week.

(Barron's, *The No- Money Down Disaster*, August 23, 2006).

387. By October 4, 2006 Federal Reserve Chairman Ben S. Bernanke conceded that "There is currently a substantial correction going on in the housing market".

388. The same day, Moody's released a 195 page report titled "Housing at the Tipping Point", predicting imminent double-digit housing price declines in bubble markets and the first "calendar year" nationwide home price decline since the Great Depression.

> *Study sees '07 `crash' in some housing*
>
> **Applying the word "crash" to sagging real estate markets in some parts of the country, a new study predicts that in the coming year, the nation's median home price will decline for the first time since the Depression.**
>
> *****
> **The prognosis was [] dire for 20 other cities in the report's so-called "crash" area, where it predicted that prices would decline by double digits from their peaks** ....
>
> The most serious price slides are seen in southwest Florida, numerous California metro areas and in the Phoenix, Las Vegas, Washington and Detroit areas, according to Zandi.
>
> **His prediction of a 3.6 percent median price decline nationwide also crosses a line drawn by many economists during the most heated debates about the housing bubble–that home prices have never gone into negative territory countrywide.**
>
> **"Prices have never declined on a calendar-year basis for that length of time [since housing records have been kept]," Zandi said. "There have been quarters, but never an entire year."**

(Chicago Tribune, *Study sees '07 `crash' in some housing*, October 5, 2006).

389. The monthly year-over-year data provided by the National Association of Realtors showed that by August 2006, year-over-year home prices had in fact declined – for the first time in 11 years:

> **...each passing week shows the nation's housing statistics heading down... According to the National Association of Realtors, sales of existing homes were down 12.6% in August from a year earlier, and the median price of homes sold dropped 1.7% over that period -- the first year-to-year price decline in 11 years.** Sales of new homes were down 17.4% in August from a year ago, according to the Census Bureau... A report by Moody's Economy.com said house prices could keep falling until 2008 or 2009 in some areas...

(Wall Street Journal, *Whistling Past Housing's Graveyard? --- Builders' Shares Have Been Hot, Sparking Debate Among Investors On Whether Sector Has Hit Bottom*, October 9, 2006).

390. These declines were not the "crisis" itself, but just its beginning. They were merely the initial stages of the much longer and larger drop necessary to realign housing prices with objective realities:

> **The damage is likely to spread beyond the subprime sector to the real estate market as a whole**, said analysts such as San Diego-based Rich Toscano and Christopher Thornberg, an economist at the UCLA Anderson School. These analysts, who have long warned of a housing "bubble," say that **a stream of must-sell homes re-entering the market will depress home prices by increasing supply. On the demand side, tighter credit requirements will reduce the pool of eligible buyers and send buyers on shaky financial ground into default when they can't refinance their loans.** (North County Times, *Accredited Stock Collapses; Home Lender Considers Sale*, March 14, 2007)

C. Refinancing Becomes Impossible and a Wave of Nonprime Defaults Inevitable

391. The nonprime mortgages underlying ABS CDOs were fundamentally dependent on rising housing prices and on the ability to refinance before rates reset to payment shock levels. As demonstrated above, by August 2006, housing prices were no longer rising, but declining. As detailed below, in various stages between mid-2006 and March 2007, the ability to refinance collapsed as well.

1. The Mid-2006 Spike in Early Payment Defaults Leads Some Mortgage Originators to Collapse and Leads All Mortgage Originators to Tighten Lending Standards

392. Beginning in early 2006, record numbers of subprime loans began to go bad *immediately*: i.e., borrowers did not even make their first payment ("First Payment Default" or "FPD") or failed to make their first three payments ("Early Payment Default" or "EPD"). To emphasize: these defaults were not caused by higher *resetting* rates, which were still one to three years off, but rather indicated borrower inability/unwillingness to pay the initial, low teaser rates.

393. During 2005, only 1 in every 10,000 subprime loans originated experienced an FPD. During the first half of 2006, the FPD rate had risen by a multiple of 31: nationwide, about 31.5 out of every 10,000 subprime loans originated between January and June 2006 had a delinquency on their first monthly payment, according to LoanPerformance, a subsidiary of First American Real Estate Solutions.

394. By the end of 2006, EPD rates for 2006 subprime mortgages had risen to ten times the mid-2006 FPD rate: 3% of all 2006 subprime mortgages were going bad immediately. 2006 subprime mortgages from First Franklin, Long Beach, Option One and Countrywide had EPD rates of approximately 2%; those originated by Ameriquest, Lehman, Morgan, New Century and WMC had EPD rates of 3%-4%; and those originated by Fremont had EPD rates higher than 5%. *See* Moody's Investors Service, *2006 Review and 2007 Outlook: Home Equity ABS*, January 22, 2007, p. 12 at Figure 14.

395. Initially, EPD was "inside baseball": it took place deep within the mortgage industry (which included Citigroup) and rarely became apparent to the wider public. Industry insiders reported in specialized mortgage publications that EPD was also a game of "hardball" – because securitizers who purchased mortgages from originators could "put back" EPD and FPD mortgages to the originators, forcing originators to repurchase at full price their defective mortgages. EPD buy-back demands were often settled, not necessarily through actual buy-backs, but through significant price concessions on the sale of further loans, or via originator lump-sum

payments to reimburse Wall Street securitizers for the decreased collateral value of the loans. *See* National Mortgage News, *Street Gets Tough on Buybacks*, April 24, 2006.

396. As 2006 progressed and the amounts at stake became ever larger, EPD emerged into the public realm as the first visible indicator of subprime deterioration.

397. During the first half of 2006, the California subprime shop Acoustic Home Loans became the first subprime originator driven out of business by EPD buy-back requirements. In April 2006, Bear Stearns' EMC Mortgage, reputed to be a primary EPD enforcer, sued subprime originator MortgageIT over approximately $70 million in EPD buyback demands. California's Fremont General Corporation, a leading subprime originator, reported a 185% increase in loan repurchases during the first half of 2006 compared with the first half of 2005, though total loan origination volume grew just 7% during the same period. On August 31, 2006, H&R Block reported a $131 million quarterly loss, its largest loss in at least 17 years, driven by a $102 million reserve charge for EPDs at H&R Block's subprime originator Option One Mortgage Corp. On October 16, 2006, Accredited Home Lenders revealed that it had been forced to buy back $38.6 million in mortgages in the previous quarter, a 145% increase from the same period a year earlier. Accredited further informed that the "leading" indicators of EPD loans were documentation levels (i.e., "stated" income loans) and high-LTV loans, especially loans made together with simultaneous second liens. In November 2006, California subprime lender ECC Capital Corp. reported a "stunning" $54 million loss for the third quarter of 2006 due to EPDs and loan buybacks that had caused $23 million in losses. On December 1, 2006, Texas subprime lender Sebring Capital discontinued operations after being presented with EPD buyback demands it could not afford.

398. By October 2006, EPDs became front page news in the *Wall Street Journal*:

> AS THE HOUSING SECTOR cools, the mortgage market faces an awkward question: Who takes the hit when loans go bad? A generation

> ago, nobody asked. Banks made loans and suffered the consequences when borrowers didn't pay. Today, a complex Wall Street machine buys and sells mortgages and packages the loans into securities that are diced and sliced and sold again to investors world-wide.... players on Wall Street and beyond are starting to grapple over bad loans, especially in the market for borrowers with scuffed credit -- so-called subprime customers.
>
> … Under contracts that govern the exchange of mortgages, lenders often must take back loans that default very early in their lives or that come with underwriting mistakes, such as flawed property appraisals. As the housing boom fizzles, cases of bad underwriting are popping up and more mortgages are defaulting early. That has investment banks and other mortgage buyers invoking these contract provisions and pressing lenders to repurchase mortgages that get sold to third parties, creating big losses for some lenders... In response, some originators are tightening standards, and mortgage buyers are beefing up due diligence... H&R Block Inc. recorded a $131 million loss for the quarter ending July 31, largely because it added $102 million to reserves for loans its unit Option One Mortgage Corp. had to repurchase.... Impac Mortgage Holdings Inc., a REIT that earned $270 million last year, saw repurchases triple between the first and second quarters of this year, rising to about $100 million. Impac said its repurchases peaked in the second quarter.

(Wall Street Journal, *Whistling Past Housing's Graveyard? --- Bad Loans Draw Bad Blood*, October 9, 2006).

399. During the first week of December 2006, EPD buyback demands felled California-based OwnIt Mortgage Solutions, one of the fifteen largest subprime originators in the country, which closed its doors "amid reports that the subprime lender had been hit by huge loan buyback requests from an investor" (Workout Wire, *BuyBacks Appear to Shutter Two Firms*, December 8, 2006). In the ensuing weeks, Ownit explored trying to sell itself, but its potential losses from outstanding EPD demands were too high for any buyers to be interested (American Banker, *OwnIt Selloff Try Nixed by Buyback Hit*, December 8, 2006). OwnIt filed for bankruptcy December 28, 2006.

400. Simultaneously, another large subprime lender, ResMAE Mortgage Corp., was presented with a staggering EPD demand of $308 million (stemming from its sale of $3.5 billion of subprime loans) – meaning that *9% of its recent subprime mortgage output had defaulted*

immediately. ResMAE could not meet its EPD demands and filed for bankruptcy February 12, 2007.

401. Smaller subprime originators, meanwhile, were being rendered extinct. Secured Funding Corp., a California subprime lender focused on home equity loans ($1.3 billion of originations in 2005), closed on January 8, 2007 due to buyback demands. Bay Capital ($0.8 billion of originations during 2005) closed for same reasons on January 12, 2007. Lenders Direct Capital Corp. shuttered wholesale operations on February 8, 2007 amid rumored loan buybacks; it had been originating $200 million of subprime mortgages per month. Maribella Mortgage LLC (Minnesota, $900 million of 2005 subprime originations) shut down under EPD buyback pressure on March 9, 2007. Sunset Direct Lending (Oregon, $1. 2 billion of 2005 subprime originations), one of three firms sued by Credit Suisse for failing to honor EPD demands, filed for bankruptcy on March 22, 2007.

402. The record presented above with respect to EPDs was not merely visible to securitizers such as Citigroup, but was in fact the result of the securitizers' own actions. EPD demands were demands made by a small set of securitizing banks (such as Citigroup), as those banks realized – before anyone else – that subprime mortgages were defaulting at record levels.

403. The immediate consequences of the securitizers' EPD demands were plainly visible: a substantial reduction in subprime origination capacity (and thus, refinancing capacity) resulting from the wave of subprime originator bankruptcies and closures.

404. Subprime originators, with record numbers of defective loans now being returned back to them through EPD demands, became directly and highly motivated to improve their origination standards. This development was "game changing" insofar as it served to reconnect originators to the risks of their originated loans. Now that the risks of those loans were materializing on originators' doorsteps, originator standards changed drastically. As one

observer put it, "subprime lenders, having witnessed their erstwhile competitors swinging from the gallows, are trying to slip the noose" by making less risky loans.

405. In practice, this meant, as detailed below, withdrawing from a precise and definable segment of the market: (1) loans made on the basis of unverified, undocumented "stated" income; and (2) loans that required little or no borrower down payment, especially first-liens originated together with "simultaneous second" piggyback loans, through which borrowers obtained the full amount of the property's purchase price with "no money down".

406. The foreseeable consequence of this was, as detailed below, clearly and immediately foreseen: approximately 40% of subprime borrowers who had obtained exactly such loans during 2005 and 2006, at peak housing prices, would no longer be able to refinance their homes once the adjustable rates reset to payment shock levels. These borrowers had only qualified for their loans by virtue of "stated" rather than objective income, had taken out those loans with little or no money down, and thus had little, no or even negative equity in their properties – all of which meant that they would no longer be able to secure a new mortgage to pay off the one they were now trapped in. In short, a massive wave of subprime defaults upon rate resets was now guaranteed.

407. Fremont General, the fifth-largest subprime originator during 2006 with $32.3 billion of subprime loans generated, was among the worst producers of EPD loans. Between July 2005 and May 2006, Fremont's EPD rates more than doubled from 2.64% to 5.82% – i.e., more than 1 in 20 subprime loans was going bad immediately. In response, Fremont began in May 2006 to tighten its origination standards, focusing particularly on stated income loans and high-CLTV combination loans featuring a first-lien for 80% of the property value and a second-lien piggyback from the remaining 20% of the property value. Some examples: to extend any loan to a wage earner under "stated" rather than verified income, Fremont raised its FICO score

minimum from 500 to 550; to extend a 100% LTV piggyback package under full documentation, the minimum FICO score was raised to 600 from 580; to extend such loans to wage- earning borrowers under stated income, the minimum FICO requirement was raised to 640 from 620. (Fitch Ratings, *Subprime Mortgage Distress on CDOs*, July 2007, pp. 33-34).

408. As Asset Securitization Report concluded in November 2006, Fremont's EPD problems and its solutions (tightening origination standards, particularly with respect to stated income and high CLTV loans) were representative of industry-wide developments (Asset Securitization Report, *2006 HE ABS Vintage: the Worst Ever?*, November 27, 2006).

409. First Franklin, the ninth-largest subprime originator in 2006 with $27.7 billion of loans, tightened its standards in exactly the same way (but more so) in response to exactly the same problem (Bankrate.com, *Lenders Tighten Standards on Subprime*, April 18, 2007).

410. New Century Financial, the second-largest subprime originator during 2006 with $51.6 billion of loans generated, made similar changes to its lending standards in December 2006 with respect to "stated income" and high-CLTV loans. More momentously, New Century began, for a subset of riskier borrowers (those bearing FICO scores of less than 580 and seeking loans with LTVs greater than 80%), to originate loans based on borrower debt-to-income calculated *not* at the initial teaser rates but rather at higher rates to which the mortgage would reset (Bloomberg, *New Century Tightens Sub-Prime Mortgage Standards*, January 4, 2007).

411. The industry-wide constriction of subprime credit began to be apparent in aggregate Federal Reserve quarterly statistics beginning in late 2006. During the first quarter of 2007, banks' constriction of credit standards leaped to highest degree of constriction reported during the last fifteen years (15.1% net). These aggregate figures understated matters, because they were based on residential real estate lending as a whole (i.e., prime loans in addition to subprime and Alt- A). Beginning in the second quarter of 2007, the Federal Reserve refined its

survey so that it inquired as to each category of residential real estate lending: prime, subprime, and Alt-A. These numbers revealed that subprime and Alt-A credit tightening was far more dramatic: more than 50% of banks reported tightened subprime standards, more than 40% reported tightened Alt-A standards.

412. And so, subprime credit contracted in late 2006 and early 2007 on an industry-wide basis. Moreover, the credit contracted in the *same* way industry-wide, focusing on identical kinds of loans and borrowers that were recognized, industry-wide, to pose the greatest risks. As already indicated, these were: (a) stated income loans, particularly to wage earners (i.e., persons whose income was capable of easy objective verification); (b) high-CLTV loans, either via simultaneous second piggybacks or through little- or no-money down single loans; and (c) borrowers at the lower ends of the subprime credit spectrum.

413. Because the industry-wide credit contraction was so clearly defined, its effects were also precisely defined, foreseeable and foreseen. A sizeable, precisely-defined and highly-at risk set of subprime mortgages could no longer – under new standards – be refinanced, would soon hit rate resets, and upon those rate resets would default at extreme rates.

414. The key underlying fundamental factor that made nonprime performance both so bad and so forseeably bad was that 80% of all subprime loans were 2/28 or 3/27 hybrid ARMS whose rates would soon reset to payment shock levels. 40% of subprime borrowers during 2006 obtained mortgages with simultaneous second liens, thus borrowing the full price of the property without providing any equity. Even had property prices remained stable, such borrowers would no longer be able to obtain a new loan in sufficient amounts to pay off the old (because of lenders' reduced willingness to make high-CLTV loans). That property prices were declining only made matters worse: the loan amounts available through refinancing would be lower to start with, and would no longer be for 100% of the already-reduced property value. Finally, the

withdrawal from lending to wage-earners based on their "stated" income made many such borrowers unlikely to qualify at refinancing – based on their objectively verified income – for a new loan that would suffice to pay off the original one.

415. Given the concrete manner in which subprime was contracting, it was clear exactly which subprime borrowers and mortgages were headed for imminent default. Jim Svinth, chief economist for LendingTree.com, made clear that an easily-identified segment of subprime borrowers/mortgages was in "big trouble":

> **Svinth says one type of subprime customer could end up in big trouble: "If you were a 2/28 borrower a couple of years ago, and you can't document your income and don't have enough equity to put 10 percent down, and your credit hasn't got any better, you're in a bad spot," he says.**
>
> **The equity problem is particularly knotty. A lot of borrowers bought houses with no money down and made interest-only payments, counting on home values to rise so they would have equity when it came time to refinance. With house values dropping in many markets, some homeowners have no equity, and some even owe more than the house is worth. They may find it impossible to refinance.**
>
> Stuck in a subprime loan
> **"There's a lot of borrowers who are going to be stuck in loans they can't get out of," Lazerson** [president of Mortgage Grader, a mortgage brokerage in California] **says. If they can't afford the higher loan payments and can't refinance, they'll end up losing their homes to foreclosure.**
>
> **For at least a year, analysts have warned that the loose lending standards of the past few years would result in a spike in foreclosures. That's starting to happen among subprime borrowers.**
>
> **"Within the last five years, there have been virtually no underwriting standards at all," Lazerson says. There used to be a joke that you could get a mortgage if your breath could fog a mirror. Then, Lazerson says, "in the last five years, you could be dead and get a loan. It was ridiculous. We had people with zero down and bad credit and getting loans."**
>
> Brokers can't believe how lax the subprime lending requirements were just a short time ago. Investors were eager to buy mortgages, especially high-rate, risky home loans with prepayment penalties, because they were

> profitable. So investors pushed loan officers and mortgage brokers to find borrowers with lousy credit. Brokers and loan officers were paid handsomely -- practically bribed – for delivering subprime borrowers.

(Bankrate.com, *Lenders Tighten Standards on Subprime*, April 18, 2007).

416. That the door to refinancing as closing for a vast segment of subprime borrowers was not a unique insight, but a common one repeatedly uttered during late 2006 and early 2007. For example:

> ...**"The 2006 vintage is on track to be the worst ever," an RMBS analyst said last week. Slowing home price appreciation and weakened underwriting standards are creating dramatically poor performance across a wide swath of 2006 mortgages. To many, the performance of 2006 deals backed by the mortgages hinges primarily on two things: the economy, and the ability for the borrowers to refinance**. (Asset Securitization Report, *2006 HE ABS Vintage: the Worst Ever?*, November 26, 2006)
>
> *****
>
> New Century Financial Corp., the third-largest U.S. home lender to people with poor credit, last month tightened its lending guidelines amid surging defaults on so-called subprime mortgages... Other subprime lenders, including San Diego-based Accredited Home Lenders Holding Co. And Santa Monica, California-based Fremont General Corp., have said they've also cut their offerings, in part due to rising concern among bond investors who buy the riskiest securities backed by the loans.
>
> **Tighter guidelines may prevent subprime borrowers – who typically get loans whose rates adjust higher after two or three years – from refinancing into lower initial rates, leading to more defaults**, according to analysts including Chris Bendler of Stifel, Nicolaus & Co., Inc. [] and mortgage-bond researchers at UBS AG...
>
> (Bloomberg, *New Century Tightens Sub-Prime Mortgage Standards*, January 4, 2007)
>
> *****
>
> This sudden deterioration in early performance has also come as a wake-up call to originators, with many reacting with tightened lending practices in the second half of 2006 to improve performance. Some of the key changes were restricting stated income loans to borrowers with stronger credit profiles and limiting underwriting exceptions only when in conjunction with strong compensating factors. **Originators are expected to continue to tighten guidelines through 2007. As a result, Moody's**

expects origination volume to fall both due to the softer real estate environment and tighter underwriting standards. Many borrowers with weak credit profiles may no longer qualify for a mortgage. A significant number of hybrid loans will reach their reset dates in 2007 and Moody's expects performance to continue to weaken as the real estate market approaches its trough...

...The long predicted slowdown in the US housing market became a reality in the second half of 2006... **A significant number of sub-prime borrowers will be looking to refinance at the end of the fixed term of their hybrid mortgages this year. While some of these borrowers might have realized price appreciation, others who bought or refinanced at high loan-to-value ratios at the peak of the market in 2005 might have trouble refinancing in face of current market conditions.**

(Moody's Investors Service, *2006 Review and 2007 Outlook: Home Equity ABS: 2006 Was Tough – Will 2007 Be Even More Challenging?*, January 22, 2007, pp. 2, 15-16)

*****

The shakeout in the subprime industry began last year as housing prices leveled off and interest rates rose higher, curbing demand for loans. At first, some companies loosened lending standards to keep loan volume high -- a tactic that has produced a wave of early loan defaults. More recently, companies such as New Century have tightened their loan policies to reduce their exposure to mortgages that could go sour.

As part of the fallout, marginal borrowers who snapped up loans with initial easy-money terms in 2004 and 2005 will find it impossible to refinance this year to avoid sharply higher payments, especially with home prices flat or lower in many areas, said industry analyst Zach Gast.

Up to $800 billion of adjustable-rate mortgages will reset to higher payments in 2007, and one in every 11 home loans is both adjustable and subprime, according to the Mortgage Bankers Association.

"There could be a good chunk of borrowers with nowhere to go to get loans," said Gast, who follows the industry for the Center for Financial Research and Analysis, a Rockville, Md., forensic accounting and due-diligence firm with mutual funds, hedge funds and insurers as clients.

"It means a lot of people are going to lose their homes." **Gast said investors in mortgage-backed bonds, who for years demonstrated an unquenchable demand, have begun backing away from securities created from the riskiest pools of loans.**

> (Seattle Times, *Lenders report huge losses on subprime mortgages*, February 9, 2007)
>
> *****
> ...during a conference call with bond and other investors last month, Merrill's analysts said early payment defaults on subprime residential loans are accelerating.... **Merrill Lynch analyst Kenneth Bruce said lenders are under intense pressure to tighten their underwriting guidelines, which could lead to a credit crunch for subprime borrowers.**
>
> **During the same conference call, Merrill researcher Kamal Abdullah raised the specter that a subprime "contagion" could lead to the "bottom" 25% of all subprime borrowers being unable to get loans.**

(Origination News, *Merrill Making Some Originators Pay with Buybacks*, March 1, 2007).

417. As 2006 turned to 2007 and evidence of worsening subprime mortgage performance became ever more clear and apparent, lender standards continued to tighten – and thus the possibility of refinancing continued to recede – under severe regulatory and economic pressures discussed next.

2. Mortgage Origination Standards Further Constrict Under New Regulatory Guidance on Mortgage Lending in September 2006 and February 2007

418. Concerned over the deterioration of loan underwriting standards, federal regulators intervened in September 2006 and February 2007 with very clear warnings about the mortgages at the heart of the issues here: hybrid ARMS (and their Option ARM and interest-only variants) for which borrowers "qualified" by their ability to pay the lower initial rates rather than the far higher fully-indexed rates, and "stated" income loans. Although economic pressures were already leading originators to back away from both of these loans, the federal guidance gave a further push. The result: an enormous portion of recently-originated subprime mortgages (80% hybrid ARMs during 2005/2006; 40% originated on the basis of stated income) would not be able to be refinanced, would encounter payment shock upon rate resets starting in 2007, and would default in unprecedented numbers. The bases on which subprime borrowers had qualified

for those mortgages were no longer valid, and would not serve to allow them to escape those old mortgages with new ones. There would be no "new ones".

419. On September 29, 2006, federal financial regulators – including the Department of the Treasury, the Office of the Comptroller of the Currency, the Federal Reserve, the Federal Deposit Insurance Corporation, the Office of Thrift Supervision, and the National Credit Union Administration – released, after an extended comment period, a new set of regulatory guidelines concerning residential real estate lending, focused particularly on origination practices associated with adjustable rate mortgages, Option ARM mortgages, and interest-only mortgages. The guidelines, titled *Interagency Guidance on Nontraditional Mortgage Product Risks*, led to further contraction of the market. It began with the preamble:

> **Interagency Guidance on Nontraditional Mortgage Product Risks**
>
> Residential mortgage lending has traditionally been a conservatively managed business with low delinquencies and losses and reasonably stable underwriting standards. In the past few years consumer demand has been growing, particularly in high priced real estate markets, for closed-end residential mortgage loan products that allow borrowers to defer repayment of principal and, sometimes, interest. These mortgage products, herein referred to as nontraditional mortgage loans, include such products as "interest-only" mortgages where a borrower pays no loan principal for the first few years of the loan and "payment option" adjustable-rate mortgages (ARMs) where a borrower has flexible payment options with the potential for negative amortization.
>
> While some institutions have offered nontraditional mortgages for many years with appropriate risk management and sound portfolio performance, the market for these products and the number of institutions offering them has expanded rapidly. Nontraditional mortgage loan products are now offered by more lenders to a wider spectrum of borrowers who may not otherwise qualify for more traditional mortgage loans and may not fully understand the associated risks.
>
> Many of these nontraditional mortgage loans are underwritten with less stringent income and asset verification requirements ("reduced documentation") and are increasingly combined with simultaneous second-lien loans. Such risk layering, combined with the broader marketing of nontraditional mortgage loans, exposes financial institutions to increased risk relative to traditional mortgage loans. Given the potential

> for heightened risk levels, management should carefully consider and appropriately mitigate exposures created by these loans. To manage the risks associated with nontraditional mortgage loans, management should:
>
> • Ensure that loan terms and underwriting standards are consistent with prudent lending practices, including consideration of a borrower's repayment capacity;
>
> • Recognize that many nontraditional mortgage loans, particularly when they have risk-layering features, are untested in a stressed environment. As evidenced by experienced institutions, these products warrant strong risk management standards, capital levels commensurate with the risk, and an allowance for loan and lease losses that reflects the collectibility of the portfolio; and
>
> • Ensure that consumers have sufficient information to clearly understand loan terms and associated risks prior to making a product choice.
>
> The Office of the Comptroller of the Currency (OCC), the Board of Governors of the Federal Reserve System (Board), the Federal Deposit Insurance Corporation (FDIC), the Office of Thrift Supervision (OTS) and the National Credit Union Administration (NCUA) (collectively, the Agencies) expect institutions to effectively assess and manage the risks associated with nontraditional mortgage loan products.
>
> Institutions should use this guidance to ensure that risk management practices adequately address these risks. The Agencies will carefully scrutinize risk management processes, policies, and procedures in this area. Institutions that do not adequately manage these risks will be asked to take remedial action.
>
> The focus of this guidance is on the higher risk elements of certain nontraditional mortgage products, not the product type itself. Institutions with sound underwriting, adequate risk management, and acceptable portfolio performance will not be subject to criticism merely for offering such products.

(*Interagency Guidance on Nontraditional Mortgage Product Risks*, September 29, 2006).

3. The Final Collapse in Early 2007: Subprime Originators are Rendered Extinct, Lending Standards Constrict Severely, and the Possibility of Nonprime Refinancing Ends

420. The final blow to refinancing came during the first three months of 2007, during which time severe economic pressures drove most subprime originators out of business and drove the few that remained to drastically revise their origination standards so as to produce safer

loans. The end result was that by March 2007 subprime origination had almost entirely collapsed. This collapse had obvious consequences for the wave of hundreds of billions of dollars of subprime 2/28 and 3/27 ARMs, originated during 2005 and 2006, whose rates were due to reset to payment shock levels between 2007 and 2009. Many of these mortgages would not be able to refinance: most subprime lenders no longer existed; the few that remained were no longer taking on risky loans. Hundreds of billions of dollars of subprime mortgages were headed for imminent default.

421. The economic pressures driving this final collapse were twofold.

422. First, as subprime mortgage risks materialized and subprime mortgage performance deteriorated during late 2006 and early 2007, the prices fetched by subprime loans on the secondary market (i.e., the prices paid by securitizers such as Citigroup) fell. In fact, prices fell to levels substantially less than the amount actually lent – meaning that, with every subprime loan made, subprime originators were losing money. A vivid example:

> Shares of NovaStar Financial, which makes loans to people with weak credit, fell almost 43 percent Wednesday after the company announced a surprise loss of $14.4 million for the fourth quarter and *told investors* **that it might not make enough money to pay dividends for the next four years**.
>
> *****
>
> Some analysts and investors say the problems at NovaStar and other subprime lenders have been evident for some weeks and months. In late January, NovaStar posted the performance of the mortgages it securitized and sold to investors on its Web site. Investors who had been paying attention would have noted that the delinquency rate for loans made in 2006 had jumped to 7 percent from 2 percent in 2005, Gast of the Center for Financial Research and Analysis said.

(New York Times, *Home Lenders Hit by Higher Default Rates*, February 22, 2007).

423. Second, most subprime originators were dependent on "warehouse lines of credit", advanced to them by securitizers such as Citigroup so as to obtain and secure pools of loans for securitizers' RMBS and CDO securitization machines. These warehouse lines

provided the originators with the funds to make their loans, and the loans served as the collateral for those warehouse lines. Periodically, the originators would sell large pools of loans to their warehouse credit providers; the funds received from loan sales effectively "reset" the revolving warehouse credit line and were plowed back into a new round of originations. Thus, the loans were really being made not with the originators' money, but with the originators' *funders'* money. This meant that the funders (such as Citigroup) were losing money with each new loan being made. As detailed below, in the first three months of 2007, those funders (with Citigroup playing a prominent role) ceased their funding, made a series of "collateral calls" on originators (because the loans' value had fallen below the amount of money lent by the funders), and withdrew their warehouse credit lines. The result: most subprime originators went bankrupt, and subprime origination halted.

4. Citigroup Knew Best Just How Precarious Its CDOs Were

a. Losses Climb the Securitization Ladder from Mortgage to RMBS to CDO

424. The world that came into existence between mid-2006 and March 2007, a world of falling home prices and limited refinancing opportunities for risky loans, was not unprecedented. It simply marked a reversion to historical means (with respect both to housing prices and to loan origination standards). What was the state of affairs in the new mortgage world of early 2007?

425. More than a trillion dollars of nonprime mortgages had been made during 2005 and 2006: mostly hybrid and option ARMs; mostly with little or no down payment; mostly with little, no or negative amortization; for properties purchased at peak prices. These mortgages were now collateralizing nonprime RMBS and CDOs. Housing prices were declining. Refinancing had become largely impossible. Rates on 2/28 ARMs originated in 2005 were going to reset starting in 2007, beginning a wave of resets that would last through 2009 (the 3/27

ARMs originated in 2006). Payment shock would ensue and defaults would spike. The wave of foreclosed-upon properties, and the constriction of credit, would lead to increased supply of housing and a decreased supply of borrowers qualifying for the means with to purchase it – pushing housing prices down farther. This in turn would lead to more defaults – and the vicious cycle would continue.

426. And finally, even before the coming reset disaster, in a healthy economy with low unemployment: (1) overall subprime delinquency, default and foreclosure rates were the highest they had been for years, and (2) 2006 subprime mortgages, in their short pre-reset lives, were already delinquent and defaulting at rates far higher than any other subprime vintage on record. The latter bears emphasis: even before reset, even in a booming economy with low unemployment, 2006-originated subprime mortgages were performing materially worse than any other subprime vintage at a comparable point in their lives.

427. Upon reset, the disparity would only grow to the 2005 and 2006 vintages' further discredit: in contrast to prior years, when refinancing had been a viable option and thus reset-inspired defaults had been muted, now refinancing was no longer an option, and reset-inspired defaults would be unlike anything seen before.

428. Most of these mortgages had been securitized. They were sitting in RMBS special purpose securitization vehicles, collateralizing in excess of $1 trillion of 2005 and 2006 nonprime RMBS. As mortgage defaults and losses mounted, losses in RMBS securitizations would rise, first eating away excess spread credit protection, then the "first loss" equity tranches. In subprime securitizations, the equity tranche on average could only absorb losses amounting to no more than 4.5% of the entire mortgage pool principal; in Alt-A securitizations, on average, losses amounting to no more than 1.8% of the entire mortgage pool principal. What if the equity tranche protection was insufficient to absorb the losses being generated?

429. Losses would rise up the ranks of the rated RMBS tranches. At the bottom of the capital structure, these tranches were very thin. First, losses would seep into the thin, BBBrated tranches (BBB-, BBB, and BBB+), each of which constituted no more than 1%-1.5% of the securitization, next to similarly-sized A-rated tranches, then to the larger AA tranches, and finally – should underlying mortgage pool losses exceed 20% – to the triple-A tranche.

430. CDO losses, however, would be far more swift and severe. Why?

431. Because CDOs were collateralized almost entirely by the lower, thinner tranches of RMBS. That meant that, as losses in the underlying mortgage pools rose, and rose into the lower, thinner RMBS tranches, losses would simultaneously *leap* into even the highest CDO tranches.

432. Mezzanine CDOs were collateralized in near entirety by the BBB tranches of nonprime RMBS. Should underlying mortgage losses rise into the BBB *RMBS* tranches, nearly the entire collateral base of the Mezzanine *CDO* would be worthless, and thus along with it every single *CDO* tranche from top to bottom – from unrated equity to triple-A super senior. In short, losses at the BBB level of RMBS meant losses at the super senior level of Mezzanine CDOs. Losses only had to rise a little bit in RMBS to flood Mezzanine CDOs entirely.

433. High Grade CDOs worked similarly, except at a slightly farther initial remove from loss given that their collateral base consisted of single A-rated and AA-rated RMBS tranches. Underlying mortgage pool losses would have to eat through the BBB-rated tranches first (wiping out Mezzanine CDOs) before they rose into the A-rated RMBS tranches that would begin to result in losses for High Grade CDOs.

b. Citigroup's Degraded "High Grade" CDO

434. However: Citigroup's High Grade CDOs were collateralized, to a uniquely high degree (generally 35% of total CDO assets), not by A- and AA-rated *RMBS* tranches, but by A

and AA-rated *CDO* tranches. When such tranches originated from Mezzanine CDOs, they were worthless – as per above – merely when underlying mortgage losses rose to BBB RMBS level. So Citigroup's High Grade CDOs were not as "high grade" as their name indicated. Effectively, they were collateralized 33% by BBB-rated nonprime RMBS, 33% by A-rated nonprime RMBS, and 33% by AA-nonprime RMBS. Thus, as losses rose only to BBB RMBS levels, the collateral of Citigroup's High Grade CDOs would be sufficiently impaired so as to wipe out all tranches below the super senior level and so as to impair the value of the super senior.

c. Citigroup Structured its CDOs so that They Could Only Work Under Boom Scenarios

435. Thus, Citigroup's Mezzanine and High Grade CDOs were not merely "exposed" to nonprime mortgages, but rather were exposed in a magnified way to a relatively thin and relatively junior "slice" of risk of those mortgages. They were protected from a certain amount of initial losses that those mortgages might suffer, but should losses rise slightly higher – disaster.

436. How was it possible, then, for ABS CDOs to be structured on this basis and produce large, highly-rated tranches? The simple answer, as detailed below, is that ABS CDOs were structured on the basis of "boom" times, and only "worked" under "boom" conditions.

437. No one knew this better than Citigroup: Citigroup itself had structured the CDO and RMBS securitizations. In this structuring process, Citigroup employed several key assumptions – detailed below – to arrive at low "expected loss" calculations for the underlying assets. That meant, in turn, that relatively little credit protection and subordinate tranching were "needed" in order to generate tranched, highly-rated securities at various requisite levels of remove from that expected loss.

438. During 2006, as the housing bubble deflated, as nonprime mortgages grew ever riskier, and as nonprime mortgage performance began to deteriorate, investors began to explore on their own the potential consequences of such factors on RMBS and CDOs. Their efforts

began to make clear what Citigroup had known all along: that RMBS and CDOs had not been structured with such a world in mind, that the credit ratings currently borne by RMBS and CDO tranches were now deeply in error, and that the real world performance of housing prices and mortgages would devastate CDOs even at their highest, triple-A super senior levels.

439. At all times through at least March 2007, Citigroup modeled RMBS (and CDOs collateralized by RMBS) with the assumption that housing prices would rise at least 6% per year through the life of those mortgages. This was not a conservative assumption, but rather a "boom" assumption. As already detailed, a housing price "bubble" had long been evident, housing prices had become detached to record degree from historical relationships with their objective fundamentals (e.g., household income), a sharp correction would be needed to bring prices back in line with such fundamentals, and data everywhere showed that such correction was in fact underway.

440. Irrespective of the degree to which such an assumption was without basis, it in any event was the assumption used in order to calculate the "expected loss" that would be generated by the nonprime mortgage pool.

441. Effectively, this assumption transformed current boom performance into "baseline" expected performance throughout the life of the mortgages. When housing prices rise, as they recently had, defaults are muted (because properties can be sold at a profit, rather than default) and losses are even more muted (because defaults disappear to begin with, and the few mortgages that do default nevertheless do not experience much loss severity upon foreclosure sale). Under rising housing price scenarios, therefore, defaults are low and losses are low.

442. Using such a positive assumption yielded a very low "expected loss", with direct effects on RMBS tranche structures and ratings. At the initial RMBS level, such low expected

losses allowed correspondingly large triple-A tranches, a set of smaller lower-rated tranches, and very small BBB-rated tranches not far removed from that "expected loss".

443. But – and to make the point explicit – BBB rated tranches were not far removed from "expected loss" *only under the assumption that housing prices continued to rise at a clip of 6% per year*. If housing prices did not in fact so behave, and performed worse than assumed, matters became an entirely different ball game. The BBB tranches would not be removed from expected loss at all, but would rather be swamped by it.

444. Indeed, as demonstrated below, for RMBS BBB tranches to begin to be in trouble, and for Mezzanine CDO tranches to be in far more serious trouble, housing prices did not even need to decline, but merely fail to appreciate. If housing price appreciation was not 6% per year, but merely 0%, the lowest BBB tranche – the BBB- -- would be a total loss, and thus so would 30%-40% of a Mezzanine CDO's assets. And if housing prices actually declined – as they began to do in mid-2006 – matters would be far, far worse.

445. As subprime mortgage performance worsened in late 2006 and housing prices began to decline, some skeptical investors began to take an independent look at exactly what level of losses nonprime RMBS and CDOs would be able to withstand. One such analysis, conducted in October 2006 by Paul Singer and Elliot Associates, estimated the losses that would be suffered by the underlying mortgage pools under several different housing price scenarios, and then traced how those losses would flow through RMBS tranches and Mezzanine CDO tranches.

446. The October 2006 Singer / Elliot analysis shows: (a) housing prices that are flat or that decline 2% per year; (b) would cause underlying mortgage losses to climb to between 6% and 10% of the principal balance, (c) resulting in lower RMBS tranches getting written off, but (d) causing loss to *leap* into Mezzanine CDOs, destroying 40%-85% of their collateral and

resulting in partial/near-complete losses at the super senior level (and total losses for every more subordinate tranche).

447. In this manner, RMBS and CDOs were structured, literally, only to work in a particular world – one that operated on boom times forever.

448. This was known, for a long time, only by the parties that did the structuring: the securitization underwriter (i.e., Citigroup) and the rating agencies. Such structuring assumptions were not publicly disclosed: they were part of the "black box" financial engineering models from which these securities were born. Apart from those operating the black box, no one knew what went on inside it. That assumptions were used was known; but exactly *what* assumptions were being used was not.

449. By employing these assumptions, Citigroup created securities that were not well adapted to real-world risks, let alone to the real world that emerged in 2006 and early 2007. The tranche structures, tranche ratings, and credit protection for these securitizations – to the extent they were ever valid – were certainly no longer so by early 2007. No one knew better than Citigroup, as no one knew the optimistic assumptions that Citigroup had used to devise the securitizations' structures in the first place.

450. Furthermore: the CDO structuring process centered on three key factors: (a) the risk of default of each underlying asset (e.g., each distinct RMBS tranche); (b) the loss severity upon default of each underlying asset; and (c) the degree of correlation between the underlying assets (i.e., the degree to which individual assets' risk of default were not independent/random, but rather "correlated" to some degree). The first two of these factors were boom-biased as alleged below; and the third was without basis, as alleged in the following subsection.

451. Subprime and Alt-A mortgage securitization was effectively a phenomenon that began in 2000/2001 – coincident with the housing boom and the boom in subprime and Alt-A

mortgage originations. Therefore, nonprime RMBS not only had a limited operating history, but an operating history limited to boom times. Their life span was almost entirely confined to the period that Citigroup's CEO of its Global Wealth Management Division, Sallie Krawchek, termed a "credit nirvana", a period defined by the virtuous cycle of lower interest rates, leading to increased housing prices, leading to lower rates of default and loss, leading to increased lending, itself further boosting housing prices, etc.

452. In short, the historical record compiled by nonprime RMBS looked good – but it looked good because of the boom. The historical record of RMBS defaults showed that their default rate (during boom times) was low. The historical record of RMBS loss severity upon default showed that their losses (during boom times) were low.

453. CDOs were structured on that very (boom time) record. The "expected loss" of a CDO's collateral was a function of (a) the default risks of the RMBS tranches; and (b) the loss severity upon default of the RMBS tranches. Both the default risks and the loss severities were calculated wholly on the basis of performance during the recent boom. Both were correspondingly low, and thus the "expected loss" calculated for the CDO was low. On the basis of that low expected loss, the CDO was structured into rated tranches at various removes from that loss, with not that much in the way of subordinate tranches and with a very large proportion of triple-A tranches.

454. Wholly apart from the matter of whether such structuring was with or without basis, the fact was that, given such structuring, CDOs were fundamentally incongruent with the world that took shape between mid-2006 and early 2007. CDOs had been structured to withstand only the risks of boom-time world that no longer existed, and were wholly unprepared for the risks of the new world that had come into being.

d. Citigroup Structured its CDOs By "Assuming" that Underlying Assets Were Not Highly Correlated, When in Fact

the Underlying Assets Were Largely Identical and Exposed in the Same Way to the Same Degree to the Same Risks

455. Just as housing prices were a very consequential assumption in determining RMBS expected losses and therefore RMBS tranche structures and ratings, correlation assumptions performed the same function and had the same effect in CDOs.

456. CDOs invested, typically, in 40-300 different nonprime RMBS securitizations. As each of the RMBS securitizations was itself based on a pool of 3,000-4,000 mortgages, this meant that CDOs rested on 120,000 to 1.2 million mortgages. Although this provided massive diversification, it did *not* mean that the underlying assets were uncorrelated. The distinction between diversification and correlation helps make clear, as Citigroup's own analysts persuasively stated in March 2007, that though ABS CDOs invested in massively-diversified assets: (1) ABS CDO assets were nevertheless highly correlated, thus (2) putting even super senior CDO tranches at risk.

457. As Mark Adelson explains, diversification at its simplest is a strategy to reduce risk by not putting all one's eggs in one basket: portfolio risk is reduced when one invests in several different assets, rather than in just one. But within the common sense understanding of diversification is the more precise distinction of correlation: when one attempts to benefit from diversification, what one really is doing is seeking not merely diverse assets, but *uncorrelated* ones:

> Why Do We Care About Correlation?
>
> **Correlation is important in the credit markets. It affects the likelihood of extreme outcomes in a credit portfolio. Therefore, it plays a central role in pricing structured credit products, such as tranches of CDOs**.... Intuitively, when correlation among credits in a portfolio is high, credits are likely to default together (but survive together, too). In other words, defaults in the portfolio would cluster.
>
> Correlation is closely related to the idea of "diversification." "Diversification" describes a strategy of reducing risk in a portfolio

> by combining many different assets together. Diversification presumes that movements in the values of individual assets somewhat offset each other. More formally, a diversification strategy relies on the assumption that movements in asset values are not perfectly correlated. In fact, diversification can achieve the greatest reduction in risk when assets display negative correlation. For example, suppose a portfolio consists of two assets of equal value. If returns on the two assets are perfectly negatively correlated, a decline in the value of one asset would be exactly offset by an increase in the value of the other.
>
> In the real world, there is usually some degree of positive correlation among the credit risk of individual assets in a portfolio. The actual degree of correlation strongly influences the distribution of outcomes that the portfolio may experience.

(Nomura Fixed Income Research (Mark Adelson), *Correlation Primer*, August 6, 2004, pp. 1-2).

458. The issue of correlation is best seen in Mezzanine CDOs. Mezzanine CDOs, during 2005 and 2006, were largely (approximately 70%) collateralized by BBB tranches of nonprime RMBS: i.e., by already-tranched mortgage risks with a BBB-rating. (Standard & Poors, *Standard & Poor's Weighs In On The U.S. Subprime Mortgage Market*, April 5, 2007 at p. 17).

459. So how could a Mezzanine CDO, backed by such *already*-tranched BBB-rated risks, produce a new round of CDO securities 65% of which were rated triple-A? The answer: only by assuming that the underlying assets – the BBB nonprime tranches – or, more precisely, the risks of those assets, were *not* correlated with each other.

460. The correlation used in CDO structuring, with respect to subprime RMBS tranches, was 0.3. Using this low correlation assumption, the CDO was built on the proposition that the risk of one asset (subprime BBB tranche 1) going bad had little or nothing to do with the risk of other, like assets (subprime BBB tranches 2 through 200) going bad. In essence, using low correlation assumptions meant "assuming" that the underlying assets were not subject to the same risks, but rather behaved relatively independently and idiosyncratically. Thus, a Mezzanine CDO collateralized primarily by BBB-rated nonprime RMBS could, by using low

correlation assumptions, generate a new round of triple-A securities – but only by presuming that the underlying assets/risks were not correlated.

461. But, in fact and on their face, the underlying assets were highly similar, highly correlated and highly sensitive to exactly the same risks. To illustrate:

(a) Whereas in 2000, only approximately 50% of subprime mortgages were ARMs, during 2005 and 2006, approximately *80% of subprime mortgages were hybrid ARMs*. Thus, 80% of the 2005/2006 subprime vintages were, on their face, subject to exactly the same risks at the same times: rate resets and payment shock.

(b) Moreover, the susceptibility to those risks was worsened by a (correlated) deterioration in underwriting/origination standards that made 2005/2006 mortgages more like each other, less like their predecessors, and even more susceptible to exactly the same risks. In 2000, subprime mortgages were evenly divided between adjustable rated mortgages and fixed rate mortgages. However, both for fixed and adjustable rate mortgages, the borrower's ability to pay the monthly payment *throughout the mortgage's life* had been objectively verified. In 2005 and 2006, the situation was the opposite. 80% of 2005 and 2006 subprime mortgages were hybrid ARMs, for which borrowers had "qualified": (i) based on their ability to pay only the low, initial teaser rates, rather than the fully-indexed rates that would prevail over the life of the mortgage; and (ii) based on income that was "stated" rather than objectively documented and verified. Both of these factors made the governing risks – rate reset and payment shock – even more severe.

(c) Making matters worse was the accumulation of "risk layering": not only were more subprime mortgages hybrid ARMs, but approximately 23% of 2005/2006 subprime mortgages were interest-only, 16% were 40-year term mortgages, and 26% were accompanied by simultaneous second-lien piggybacks. The comparable numbers for 2000 were 0% (with the slight exception of piggybacks, which were less than 5%). The interest-only and 40-year term features – 42% of the subprime origination in 2005/2006 – intensified the risks of rate resets and payment shock, principally by structuring the mortgage to be "affordable" on the basis of even lower initial monthly payments. Not having to make principal payments, for example, made a mortgage more affordable during the initial "interest only" period, but worsened the payment shock once that period ended and principal amortization began in concentrated fashion.

462. In these mortgages the exact same risk – rate reset and payment shock – was thus intensified through layer upon layer of addition: (a) a predominance of hybrid ARMs; (b)

qualification (de)based on borrowers' ability to pay those ARMs only at the initial teaser rates; (c) borrower's "ability" to pay even those teaser rates itself not verified; and (d) the initial rates made more "affordable" through interest-only and 40-year term features.

463. This made these mortgages highly dependent, for successful performance, on exactly the same two things: (a) rising housing prices (so that, if borrowers found it difficult to continue to pay, they could sell the house and pay off the mortgage, or refinance) and (b) the ability to refinance before or shortly after payment shock (which itself depended on continued housing price appreciation and continued laxity in lending standards).

464. But housing prices began declining steeply in bubble markets by mid-2006, and nationwide by August 2006; and the door to refinancing closed between mid-2006 and –March 2007. These developments spoke directly to the concentrated, correlated risk to which the bulk of subprime mortgages were exposed. These developments were going to affect immense amounts of nonprime mortgages in exactly the same way – very negatively.

465. Again, irrespective of the degree to which the low asset correlation assigned to nonprime RMBS was ever with basis, by early 2007 at the latest it was clear that this structuring assumption had created CDOs unprepared for the imminent, correlated and very poor mortgage performance they were about to witness.

466. CDO structures and ratings, having come into being on the presumption that BBB-rated subprime RMBS tranches were *not* substantially exposed to the same risks, were literally not built to withstand a world in which BBB-rated subprime RMBS tranches *were* substantially exposed to the same risks. In this latter world, a Mezzanine ABS CDO backed primarily by nonprime RMBS (such as most Mezzanine CDOs during 2004-2006) simply could not exist: it would not be possible to take a pile of highly-correlated BBB-rated subprime assets and on their basis generate a new large pile of triple-A rated securities. One could resecuritize

that asset pile, but with no benefit and to no end: the resulting securities would be rated BBB, rather than AAA. This serves to demonstrate how low correlation assumptions conditioned the very possibility of subprime-backed CDOs.

467. Finally, correlation was of particular importance to CDO super senior tranches. Given the credit protection provided by the subordinate tranches, losses at the super senior level cannot result from "random" underlying asset defaults (low correlation), but rather *only from highly-correlated asset defaults*:

> The actual degree of correlation strongly influences the distribution of outcomes that the portfolio may experience. Slicing the portfolio into several "tranches" of credit priority magnifies the importance of correlation because the degree of correlation affects the value of different tranches differently.
>
> *****
>
> Now **consider the CDO's senior tranche... The situation for the senior tranche is exactly opposite to that of the equity tranche. When the portfolio's correlation is zero, there is only a slight possibility that many defaults occur and cause losses for the senior tranche. On the other hand, a high correlation means an increased possibility of a large number of defaults, where all junior tranches are exhausted and losses reach the senior tranche. Accordingly, an increase in correlation decreases the value of the senior tranche.**

(Nomura Fixed Income Research (Mark Adelson), *Correlation Primer*, August 6, 2004, pp. 2-3).

468. In March 2007, Citigroup's chief credit strategist Matt King issued a report recognizing: (a) that ABS CDO assets were in fact highly correlated; and (b) that such correlation had substantial effects on the value of the super senior tranches (which, the reported noted, had already suffered substantial declines in value).

469. First, Citigroup's report noted that although each RMBS itself contained a diverse array of mortgages, when a CDO invested primarily in RMBS it wasn't increasing diversification but rather reversing it, by increasing correlation:

> The report argues that, unlike CLOs, **US CDOs of ABS seem to be relatively undiversified. The individual triple-B and triple-B minus**

> **ABS tranches within CDOs of ABS are actually quite well diversified, but when incorporated in CDOs the effect is reversed.**
>
> Rather than being concentrated in particular regions, ABS tranches tend to span several regions - even if there is still a preponderance of exposure to 'hot' states like California. This renders the individual ABS more stable. **But from a CDO perspective , it actually makes the collateral more similar - thus reducing diversification.**

(Structured Credit Investor, *CDO of ABS Sub-prime exposure Assessed*, March 28, 2007).

470. High correlation, Citigroup analysts stated (in agreement with Mr. Adelson and basic logic), meant that either everything would be OK (and the BBB-rated RMBS tranches would all pull through), or everything would be a disaster (and the BBB-rated RMBS tranches would all deteriorate). Because correlation was the Achilles heel of super senior tranches, Citigroup analysts concluded that effects at the super senior tranche level would be "far worse" than at other levels. Indeed, Citigroup's analysts noted that such correlation logic lay behind the already visible and substantial decline of the TABX index tracking Mezzanine CDO super senior tranche pricing:

> **"As we see it, this creates a classic 'ball in bowl' phenomenon , in which either no ABS tranches get downgraded , or a great many do," King says.**
>
> **The report argues : "translated into the CDO space, widespread downgrades would, relatively speaking, be far worse for senior tranches than for junior ones... Such findings already seem comfortably priced into TABX - and indeed help to explain the otherwise absurd levels reached by its super-senior tranches..."**

(Structured Credit Investor, *CDO of ABS Sub-prime exposure Assessed*, March 28, 2007).

III. CDOs: STRATAGEMS, CONTROLS AND DISCLOSURES

471. Defendants knew full well that Citigroup was exposed to increasingly risky assets and decreasingly valuable assets, primarily in the form of mortgage-related instruments, and dissembled, concealed and schemed to avoid having those facts fall into public hands.

A. Schemes

1. Citigroup's Commercial Paper CDO "Sales": How to Make $25 Billion of Subprime Exposures and Risks (Appear to) Disappear

472. As Citigroup first revealed in November 2007, Citigroup had $25 billion of exposure to the super-senior tranches of its Commercial Paper CDOs. As plaintiffs' identification of those Commercial Paper CDOs demonstrated, this exposure had been generated primarily during 2004 and 2005, and existed in $25 billion totality by early 2006. Though this exposure had long existed, it had never been disclosed prior to November 2007.

473. Through the scheme detailed below, Citigroup created the appearance that these $25 billion of subprime CDO super senior tranches had been sold, and that their risks had thus been transferred. In fact they had only been sold with an undisclosed, full-price money-back guarantee, which guarantee meant that Citigroup had retained the risk all along. The undisclosed guarantee obligated Citigroup, precisely at the moment the underlying collateral began to deteriorate and the securities began to lose their value, to repurchase the securities at their initial price. In November 2007, Citigroup represented that this repurchasing occurred during the summer of 2007. But further schemes discovered by plaintiffs suggest that Citigroup recognized that its obligations were coming due no later than February 2007.

474. As plaintiffs' explanation demonstrates, Citigroup, as the underwriter of these CDOs, structured them so that the super senior tranches, rather than offering yields sufficient to accomplish true and final sales to investors, bore much lower yields but carried Citigroup's guarantee. The difference between the higher yields they could have offered and the lower yields they actually offered was Citigroup's guarantee fee. From the perspective of the CDO, therefore, the payout was roughly the same: either higher yields to one set of investors, or lower yields to another set plus Citigroup's guarantee fee. But from Citigroup's perspective, the payout was opposite: zero under the higher-yield-but-true-sale scenario, or substantial under the

lower-yield plus-Citigroup-guarantee scenario. Citigroup thus paid itself to retain the risks with the funds that could have been used to transfer them. These payments totaled $50 million per year, which appeared in Citigroup's financial results as a boost to revenues and income. The risk that Citigroup retained in order to generate those payments made no similar appearance.

475. In Citigroup's Commercial Paper CDOs, the super senior tranche was not issued/funded in the traditional form (long-term debt), but rather in the form of short-term commercial paper. This had certain benefits and certain risks.

476. The benefit was simple. The market for asset-backed commercial paper was (a) enormous (nearly $1 trillion) and (b) accepting of low yields (given the extremely conservative investor base) below those investors demand for long term debt. By issuing commercial paper for the extremely large super senior tranche (on average, 88% of the entire securitizations), the "funding structure" of the CDOs – i.e., how much money the CDOs were required to pay out – was made substantially cheaper.

477. The net result was an increase to the CDO's arbitrage, or "excess spread": i.e., the difference between the money flowing into the CDO (from the collateral) and the money flowing out of the CDO (in interest payments to investors). By reducing the required payout on the large super senior tranche, some of the "excess spread" savings could be redistributed to the junior and equity tranches. Because the junior and equity tranches were so small (totaling 5% of the these CDOs on average), the effect of the transferred excess spread was greatly magnified, resulting in extremely high coupons/returns to better entice investors to purchase these more risky securities.

478. The risk was also simple. The risk was the gap between short term funding and long-term obligations. The need to "rollover" the commercial paper funding on a regular, short term basis gives rise to what is known as "liquidity risk". As the commercial paper comes due, investors must be persuaded to "roll over" their investments for a new short-term round of

investment, and/or new investors must be found to replace the old. If old investors refuse to rollover their investments and new investors cannot be found, then the CDO will self-destruct: it will be forced to sell assets to pay off maturing short-term debt.

479. When does rollover risk manifest itself? Generally, when the collateral backing the commercial paper takes a turn for the worse. By this manner, the credit risk of the underlying collateral results in a liquidity risk for the instruments backed by that collateral.

480. What happens when collateral quality deteriorates and rollover becomes more problematic? Many things have a price: by increasing the interest rates offered by the commercial paper, rollover can proceed by enticing investors via added/comparatively superior yield.

481. However, at a certain point, raising commercial paper yields to achieve rollover defeats the purpose of commercial paper issuance in the first place – cheaper funding. Concretely, a CDO cannot raise the yield offered on commercial paper *too* much, because doing so will first (a) eat right back into the saved excess spread, and (b) even require the CDO to make more in payouts than it takes in from the collateral, thus again leading to implosion.

482. The way out of this impasse, both from the perspective of the CDO and from the perspective of commercial paper investors concerned about credit risk, was provided by a guarantee made by Citigroup. The guarantee was that, upon any serious trouble that had the effect of raising commercial paper yields to unsupportable levels, Citigroup would repurchase the commercial paper, at full price. Thus, Citigroup ostensibly sold CDOs but retained the risks associated with them.

483. Specifically, in connection with the above-listed CDOs, Citigroup provided a "liquidity put" which obligated Citigroup to buy back the commercial paper at full price and at low yields if commercial paper rates were to rise above a certain level (LIBOR + 0.4%).